RCMA
NEWSLETTER
MARCH 1988

Photo by Hugh Stegman CA-LA-472

FIRST NATIONAL AND INTERNATIONAL ORGANIZATION OF MONITOR RADIO LISTENERS

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RCMA NEWSLETTER

GENERAL MANAGER
BUSINESS AFFAIRS • ADVERTISING

Carol Ruth (CA-OR-100)
P.O. Box 542
Silverado, CA 92676

GENERAL EDITOR

William Mauldin (FL-137)
961 Azalea Street
Boca Raton, FL 33432

ASSISTANT EDITOR

Kurt Swaney (KS-006)
P.O. Box 1198
Manhattan Beach, CA 90266-8198

FOR YOUR INFORMATION:

1. Input to the RCMA Newsletter must be mailed to the proper editors, whose addresses are included in the individual column headlines. If no particular column seems appropiate, send input to RCMA, P.O. Box 1198, Manhattan Beach, CA 90266-8198

2. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address on it; mail to RCMA General Manager, P.O. Box 542, Silverado, CA 92676.

3. PLEASE INCLUDE YOUR RCMA MEMBERSHIP NUMBER WITH ALL CORRESPONDENCE to newsletter editors or club headquarters.

4. If you require a reply when writing to RCMA headquarters or to one of the editors, you MUST enclose a self-addressed, stamped envelope.

5. Please write on only one side of the paper.

6. Please don't combine in one letter several items that should go to different addresses.

7. If you want to type what you submit to the newsletter, please don't exceed a seven-inch column width and please single space. Doing this may save an editor from having to retype the material. Please don't use script type.

8. Your RCMA membership number and expiration date appear on your newsletter mailing label.

9. You may join or renew your membership for ONLY one year at a time.

10. RCMA accepts paid advertising. For information on advertising rates and mechanical requirements, contact Carol Ruth, RCMA Advertising Manager, P.O. Box 542, Silverado, CA 92676.

RCMA Newsletter

Issue 145 March 1988

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RCMA, Inc., P.O. Box 4563, Anaheim, CA 92803

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CONTACTING RCMA?

For membership applications or renewals, address changes, inquiries about delivery or renewal problems, write to:

RCMA General Manager
P.O. Box 542
Silverado, CA 92676

Have a comment about RCMA club policy or newsletter content? Write to:
William Mauldin, RCMA General Editor
961 Azalea Street
Boca Raton, FL 33486

Want a letter published in *Your Thoughts* column? Write to:
Kurt Swaney, RCMA Assistant Editor
P.O. Box 1198
Manhattan Beach, CA 90266-8198

Correspondence sent to RCMA's Anaheim P.O. Box will still be answered, but there will be a 4-6 week delay.

Cover Photo: "Sky 10" news helicopter used by KGTV, Channel 10, in San Diego, CA. Frequencies are 161 and 450 MHz.

Photo by Hugh Stegman CA-LA-472

The RCMA Newsletter is published by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, Inc., P.O. Box 4563, Anaheim, CA 92803. Subscription rate/membership fee is $16.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico—$18.50; Europe—$20; South Pacific and Asia—$21.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. RCMA, Inc. does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted©. Reproduction of any material in this newsletter is prohibited without prior written consent.

CALENDAR

Send notices of upcoming events for the Calendar section to:
John R. Clark, 2701 Fairview Road, Costa Mesa, CA 92626

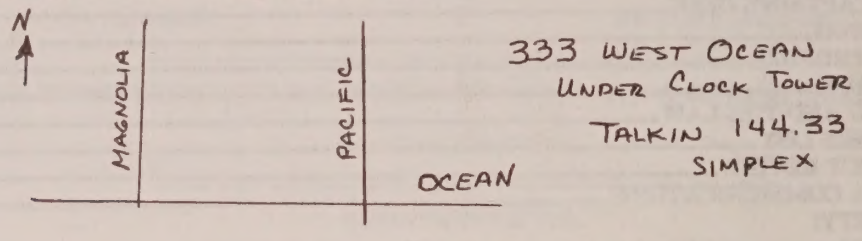
Deadline: 1st of the month two months prior to cover date.

Dates for the February 1988 Newsletter

Paste up completed :	17 Dec 87	Labels to mailer	: 5 Jan 88
Delivery to printer:	18 Dec 87	Newsletters to mailer:	4 Jan 88

R.C.M.A. Greater Los Angeles Area Chapter

FEB 26 Tour Long Beach PD FRIDAY 8:00 PM



MAR 25	Tour Orange County Fire (ex Sta 91)	FRIDAY	8:00 PM
APR 22	Tour Santa Ana PD		
MAY 27	Tour San Beranrdino Sherrif and County Fire		
JUN 24	Tour LA County Fire Department & LA dispatch		

R.C.M.A. West Los Angeles Area Chapter

Contact : Rick DiFiore (CA-LA-544) (213) 397-6581 or
Hugh Stegman (CA-LA-472) (213) 398-5353
Talk in: 146.925 MHz {-600 PL-2A} Tues 1930 hrs net.

Meetings on the second Wednesday of each month at 7:30 PM. The location is Shakey's Pizza Parlor, 12924 Washington Blvd, Culver City. Take the 405 Freeway to Washington, and go west to the Shakey's at the corner of Beethoven St. Use frequency 146.925 for talkin.

Austin Area Radio Listeners Meeting

Contact David Litsinger TX -032 441-0650
P.O. Box 17142, Austin, TX 78760

3rd Thursday of the month 7:00 PM
South Austin Multi-Purpose Center
2508 Durwood (off 500 Blk W. Olterf)
Lots of easy parking here

Northeast Scanners

Contact Les Mattson NJ 187
212 West Broad Street, Paulsboro, NJ 08066

"The Northeast Scanning News" a monthly publication covering the states of New Jersey, New York, Pennsylvania, Delware, Ohio, Maryland, Virginia, West Virginia, DC, Main, Connecticut, Massachusetts, New Hampshire, Rhode Island, and Vermont. Sample copies $2.00. Make checks out to Les Mattson.

A second ANNUAL NESN PICNIC is planned for the last of June, 1988. Picnic is open to all scanner listeners.

R.C.M.A. Chicago Chapter

Contact Edward Robert Sirovy IL-004 312 969 2856
311 S. Williams Street, Westmont, Il 60559

Saturday	March	5 1988	1:00 PM
Saturday	April	16 1988	1:00 PM
Saturday	June	11 1988	1:00 PM
Saturday	July	30 1988	1:00 PM
Sunday*	August	28 1988	all day
Saturday	September	17 1988	1:00 PM
Saturday	November	12 1988	1:00 PM

* annual Picnic - Field Day

Visitors are welcome but please confirm the date in advance.

The Chicago Chapter requests members send a years supply of 9 SASE's plus $2.00 to the "contact person" listed above. The funds will cover the printing of a newsletter that will be sent of all chapter members just before each meeting.

R.C.M.A. for D.C., MD, VA & DE

Contact: Capitol Hill Monitors % Alan Henney (MD 069)
6912 Prince Georges Ave, Takoma Park, MD 20912

Local chapter newsletter is supplementary to the RCMA newsletter. Because members are so far apart, no meetings are presently scheduled. However, anyone interested in corresponding or meeting local area members may send their name, address, phone (optional) & monitoring interests to above address. A list of these names and interests will be compiled and sent to individuals on the list. Visitor, traveler, frequency & newsletter requests are also welcome.

R.C.M.A. Minneapolis - St. Paul Area Chapter

Contact: Chuck Steier MN-008 (612) 927-9253
4820 Hwy 7, Minneapolis, MN 55416

A SASE on file assures notification of chapter activities (tours, gatherings, etc). Non members are welcome to attend.

All Ohio Scanner Club

Contact David B. Marshall OH-146, Managing Editor
50 Villa Road, Springfield, OH 45503-1036

The All Ohio Scanner Club covers all of Ohio, plus Inidana, Kentucky, Michican, Pennsylvania, West Virginia, and Ontario, Canada, plus other areas as well. Members from these and other areas are welcome. The AOSC newsletter also features execellent fedteral goverment and below 30 MHz utilities columns.

Sample Newsletter $2.00. Membership information for a SASE

R.C.M.A. Wisconsin Chapter

Contact Scott W. Miller WI-039
122 Greenbriar Drive, Sun Prairie, WI 53590

RCMA has a Telephone Number

The new RCMA telephone number is (714)545-9551. It's 'manned' by an answering machine, and while it's been established for RCMA members, its use is limited. You may leave a message concerning delivery or renewal problems; you cannot use it to request club information or order back issues. Appropriate response will be made by letter or postcard, not by telephone. Any call regarding a membership problem MUST be accompanied by your membership number.

Please remember that it is a toll call, so be sure before you dial that a written communication won't do just as well.

RCMA STATE ASSOCIATE EDITORS

RCMA State Associate Editors are your in-state club representative. The job of the Associate Editor is to collect information within his state, then verify and combine the material with other contributions from your area. Once a month, the Associate Editor forwards ALL information received to the designated column Staff Editor. The Staff Editor writes the monthly column that you read in the NEWSLETTER.

If your state has an Associate Editor, send your contributions and questions to him. He is best equipped to deal with matters within his area, and can probably answer your questions of a local nature.

If your state is not listed (except for California), the position is open for assignment. If you would like to be considered for the volunteer job, send a stamped, self-addressed envelope for an application. Your active, monthly participation is required and expected if you are selected as state Associate Editor!

ARIZONA: Bob Schmulian, 4415 N. Rockcliff Rd., Tucson, AZ 85715

KANSAS: John P. Leth-Nissen, Rt. 1, Box 101, Benton, KS 67017

MASSACHUSETTS: Terry Stader, 8 Christopher Road, Westford, MA 01886

MISSOURI: Michael Redman, Post Office Box 49, High Ridge, MO 63049

SOUTH CAROLINA: Robert Cooke, 717 Seven Oaks Lane, Columbia, SC 23664

TENNESSEE: Curtis Harbin, P.O. Box 5576 EKS, Johnson City, TN 37603

VIRGINIA: John McColman, 32 Whitaker Avenue, Hampton, VA 23664

(Applications are available by sending a stamped, self-addressed envelope to RCMA Managing Editor, 961 Azalea Street, Boca Raton, Florida 33486.)

NEED RCMA BACK ISSUES?

1986, 1987 and 1988 issues to date are available until Dec. 31, 1988, at which time 1986 issues will no longer be stored. The following postage rates apply to all orders, and are in addition to the cost of the newsletters.

THE COST OF EACH ISSUE IS $1.00
When ordering, calculate $1 per issue. Then refer to the chart below for the correct amount of postage. (Rates based on lst class USPS)

# OF ISSUES	AMOUNT OF POSTAGE
1	$ .73
2	$ 1.41
3	$ 2.09
4 thru 8	$ 2.40
9 thru 12*	add $ .48 for each issue

*Orders shipped at maximum of two years (24 issues) per package.

NO COLUMN THIS MONTH. . .

International
Editor: Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902
Listener's Profile
Editor: Joe Lewis, 750 Scotland St., Dunedin, FL 34698
Marketplace
Editor: Gary Darcy, P.O. Box 1329, Palmdale, CA 93550
New Product Review
Editor: Jim Abdu, 340 McGill Place, Atlanta, GA 30312
Special Events
Editor: Monoceros A. Amenophis V (formerly Nathaniel Lewis), 4601 Chester Ave, #1L, Philadelphia, PA 19143
Your Thoughts
Editor: Kurt Swaney, P.O. 1198, Manhattan Beach, CA 90266-8198

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well-established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below.

Write to: ANARC Newsletter, P.O. Box 462, Northfield, MN 55057 for the following:

- **Copy of ANARC Club listing—send 25 cents and a business size SASE**
- **Sample copy of ANARC Newsletter—send 60 cents and a business size SASE**
- **Annual subscription to ANARC Newsletter—$7.50 for residents of the U.S., Canada, and Mexico; $10 Overseas (Airmail)**

FEBRUARY 20 - SOUTHERN CALIFORNIA AREA DXERS (SCADS) Saturday 10 AM to 3 PM. Meeting at Luthern Church of the Holy Trinity, 1900 East Carson St, Long Beach, CA

APRIL 20 - SOUTHERN CALIFORNIA AREA DXERS (SCADS) Saturday 10 AM to 3 PM. Meeting at Luthern Church of the Holy Trinity, 1900 East Carson St, Long Beach, CA

AUGUST 20 - SOUTHERN CALIFORNIA AREA DXERS (SCADS) Saturday 10 AM to 3 PM. Summer Picnic, Huntington Central Park, Huntington Beach, CA.

OCTOBER 20 - SOUTHERN CALIFORNIA AREA DXERS (SCADS) Saturday 10 AM to 3 PM. Meeting at Luthern Church of the Holy Trinity, 1900 East Carson St, Long Beach, CA. 15TH ANNIVERSARY PARTY

MAY 21 to 25 EUROPEAN DX COUNCIL Antwerp Belgium

JULY 13 to 16 ASSOCIATION OF NORTH AMERICAN RADIO CLUBS, ANARCON 1988 World Friendship Thru Radio Communications, Irvine California. Hosted by American Shortwave Listeners Club (ASWLC) and assisted by Southern California Area DXers (SCADS). ANARCON 88 Banquet Speaker is Mr Ray Briem of KABC TALKRADIO Network and host of the RAY BRIEM SHOW.

WASHINGTON AREA DX ASSOCIATION (WADXA) welcomes visitors to the Greater Washington, DC area to their meetings. For data on the next meeting send a SASE to WADXA 606 Forest Glen Road, Silver Spings, MD 20901.

From The CAPTAIN'S DESK

William Mauldin, RCMA General Editor
961 Azalea Street, Boca Raton, FL 33486

CLUB BUSINESS AND NEWS

If you are an active scanner listener and would like to be your state representative, I encourage you to write me for a formal application for Associate Editor. We will also be printing applications in the NEWSLETTER centerfold from time to time. This position allows you to collect and distribute information to the Staff Editors, making certain your state is in print each month for improved, complete coverage. You must send a stamped, self-addressed envelope with your request.

Remember, you can get your membership extended for two extra months by having your black and white photographs printed on the cover of our NEWSLETTER. Hugh Stegman, Staff Editor of Below 30 MHz is also our club photo editor. Send your clear, print

quality photos to Hugh for NEWSLETTER cover printing. If you want your photos to be returned, enclose a stamped, self-addressed envelope for this purpose! The photos must be black and white, and directly related to our hobby of radio monitoring.

At present, the following columns are open for Staff Editor assignment. If you feel you are qualified to be an RCMA Staff Editor, write to me for a formal application. Enclose a stamped, self-addressed envelope with your request. Remember, Staff Editors who write monthly columns get free RCMA membership for the duration of their service tour. We have openings for Staff Editors in:

SPACE COMMUNICATIONS
PUBLIC SAFETY GREAT LAKES

Please do not apply unless you are seriously interested. Staff Editors must have a letter quality printer or typewriter. Associate Editors are not required to have this equipment, as they just collect and forward information.

NEWS AND MAIL THIS MONTH

On December 10th, the FCC established the BETRS, Basic Exchange Telecommunications Radio Service, which will allow hundreds of thousands of businesses and rural homes to have telephone service for the first time. The radio frequencies in the old mobile phone bands of 150 MHz and 450 MHz will be released to rural customers whose remote locations make wiring of normal telephones impossible. The new networks will establish fifty duplex VHF/UHF channels which will establish radio telephone links to these remote locations. The new channels are available because most mobile telephone service is now on the 800 MHz cellular phone bands, and will supplement the older Rural Radio Service. (W5YI NEWS)

The AT&E Corporation of San Francisco is ready to market a new wireless communications wristwatch receiver which works similar to data pagers. The patented "Receptor" allows a sender to key in coded letter-number messages by way of an FM radio station using a standard touch tone telephone. The FM broadcast station will then transmit the message on an unused subcarrier to the wristwatch receiver. The receiver will then activate an alarm advising the wearer that a message has been received, for reading then or later. The "Receptor" is made by Seiko, and has extras like automatic time zone recalibration, receiving signals from the FM stations. Seattle will be the initial test market, with others to follow. The watch receiver will cost about $150 and should be available in about six months. (W5YI NEWS)

Phoneworks, Hackensack, N.J., has a toll free demonstration available of their interactive touch tone service by calling 1-800-433-4498. Conversational Voice Technologies Corporation, Gurnee, IL, has a similar demonstration at 1-800-552-5519. This is quite an impressive demonstration. (W5YI NEWS)

San Diego jammer pleads guilty according to news reports published in the San Diego Union. Jerry Edward Gastil of Ocean Beach has pleaded guilty to willfully interfering with radio communications of the FBI. Gastil was monitored by FBI radio technicians and FCC engineers as he played music from the 1960s on FBI TAC channels. Gastil is employed by an Escondido radio communications company as a technician. Judgement is expected on January 25th, and could bring as much as 10 years in prison and a fine of $25,000 as a maximum. Gastil was reported to have been fined $750 for operating a pirate broadcast station on 7434 KHz in early 1968.

KUSW begins broadcasting as a major commercial shortwave station. KUSW Worldwide, a 2.5 million watt commercial shortwave radio broadcaster, is scheduled to begin broadcasting worldwide around the start of 1988. Although the station will broadcast mainly to all of North America, coverage will also extend to Europe and Africa. KUSW is the second shortwave commercial (non-government support) station to start broadcasts from the USA. One major goal of the station will be to promote western USA tourist attractions and the State of Utah. Programs will be mostly music, however, news, weather and public affairs will also be broadcast. The station has a world network of computerized weather data, and special emphasis will be placed on weather advisories as changes are occurring throughout the world. KUSW will be on the air from 11AM to 11PM Mountain Standard Time. More information will be printed in our Below 30 MHz section as details are known.

Several communications publications have noted this month that the Justice Department will NOT be enforcing the Electronics Communications Privacy Act, as the law is not enforceable under current budget and legal limitations. MONITORING TIMES printed an editorial several issues back that indicate scanner manufacturers are mixed in their objectives to present the monitoring public with receivers which can receive

the outlawed bands such as cellular phones. Bearcat will be omitting the bands from their new scanners. Regency will continue to make scanners which will permit monitoring of bands such as cellular phone, enclosing notices advising the buyer that they may be violating the law to listen to certain communications. Radio Shack scanners, which omit the bands from their latest models, are easily modified to receive the outlawed bands.

RCMA NEW PRODUCT REVIEW RETURNS

In a conversation with RCMA Staff Editor, Jim Abdu of NEW PRODUCT REVIEW, I was pleased to learn that Jim will be returning to be an active member of the RCMA staff. Jim has advised that his absence was caused by a robbery, an employment change and a major move. Under these conditions, Jim's NO COLUMN THIS MONTH for the past few months is certainly excusable. Welcome back to NEW PRODUCT REVIEW, Jim! I encourage those of you who make those new purchases to keep Jim informed!

As an added comment, this editor had a chance to review the new Regency Turbo Scan 800 this month. The standard size Regency scanner is an excellent radio, and the word "turbo" certainly describes the scan rate. The 75 channel scanner has one feature which is handy... offering six selectable banks of pre-programmed frequencies. The banks can be any number of channels, in numerical order. Reception is as good as any scanner that I have used lately, and perhaps better than most. I judge all scanners by the performance of what I consider the best scanner ever made... the Bearcat 300. They are equal in most respects. Birdies are there, especially on the AM aircraft band, but to me they are not a major problem. The scanner covers low band, VHF aircraft, VHF FM, UHF from 406 MHz through 512 MHz, and 806 MHz through 950 MHz. There are two antennas. One for 800 MHz and another for the other bands. I was impressed with this feature, however, found the Radio Shack Pro 2004 to be better on 800 MHz frequencies when used side by side. The display is excellent, especially when used mobile and in hot weather. The liquid quartz displays used in scanners such as the 2004 are bad about turning black in very warm mobile installations. If you consider buying a Turbo 800, shop around, as discounts are available. Several Florida police departments are buying the Regency scanner for use in patrol cars. My major dislike was that all bands are NOT covered. There is NO UHF aircraft reception and the much overlooked 75 MHz band is not there either. Please send your reports to Jim at NEW PRODUCTS REVIEW!

NEW PUBLICATIONS THIS MONTH

Gordon West's Radio School announces the new MARINER'S HAM RADIO COURSE! The new 21 day course is specifically designed for the sailor who wants to get a ham license. The home style study course contains two Morse Code stereo code tapes, a 112 page theory booklet, frequency charts and $70 in equipment discount certificates. No Morse Code experience is necessary to start this study program, as the course is designed to carry the student to Novice class license status in just 21 days with little effort. Details are available by writing Gordon West Radio School, 2414 College Drive, Costa Mesa, CA 92626. ($29.95 plus $2.50 shipping)

Bob Coburn announces the new MASSACHUSETTS SCANNER GUIDE. This is an information packed book with 375 pages of frequencies, codes, call signs and lots of other very useful information. I have seen few publications which offer such helpful information to the novice listener, yet offering system details on just about every non-federal user in Massachusetts. You will find complete details on the State Police, regional enforcement systems, fire departments, aeronautical, maritime, NWS, 800 MHz systems and so on. New Hampshire is also mentioned, giving details on state and local radio systems. This is an excellent book to have if you want to truly monitor Massachusetts or New Hampshire! The publisher also offers an update service too. The book sells for $17.95, plus $2.95 for shipping. Massachusetts Scanner Guide, Post Office Box 712, Londonderry, NH 03053.

Mobile Radio Resources announces the Fifth Edition of their GOVERNMENT RADIO SYSTEMS publication covering all of California. This excellent directory leaves nothing out. There are details on every city, county, state and federal radio system operating in the State of California. The 360 page book is a major frequency directory of every government system at all levels. In addition to the standard frequency lists, there are station locations, codes, systems information, as well as transmitter site locations. Systems are detailed, well written and easy to understand. Since this the Fifth Edition, the updates are complete. The book is devoted to city, county, state and federal government system, and every page is packed with information in detail. This excellent reference tool sells for $25 and is available from Mobile Radio

Resources, 2661 Carol Drive, San Jose, CA 95125. The sister publication, CALIFORNIA MILITARY RADIO SYSTEMS, 1986, is still available for $12.

RCMA welcomes the opportunity to review and announce new publications related to our hobby of radio communications monitoring. We encourage publishers to consider advertising with us. RCMA is a non-profit organization, and offers excellent advertising rates. Rate information is available from the RCMA Business Manager. We encourage our members to support those publishers who mention RCMA as a radio listeners organization devoted to hobby monitoring.

CLOSING COMMENTS

The Dayton Hamvention is getting close. The biggest show in radio will be held in Dayton, Ohio during the last weekend in April. The event is really worth going to, and I encourage every RCMA member who can possibly attend to consider making the trip. Reservations can be difficult. If you are planning to go, I urge you contact the Lodging Representatives, Dayton Hamvention, 1880 Kettering Tower, Dayton, Ohio 45423-1880. Believe me, reservations are necessary.

Do your part for 1988 and support the editor of your favorite subject with a written contribution soon! Staff Editors need your input to write accurate, up to date reports. Support your column Staff Editors and state Associate Editors, and RCMA will grow and improve during this year. We want and need your input.

AIRCRAFT

Send private, commercial, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands above 30 MHz associated with airports and aircraft plus questions, articles and tips related to aircraft monitoring to:

Darrel Charest, 7887 Brandy Circle, Colorado Springs, CO 80920

Signs of warmer weather are beginning to appear. Just when the finicky back has become accustomed to the snow shovel, its time to grease the lawnmore and gear up for yard work. Some call it exercise. My concecpt of exercise is a manicured golf course, an electric cart, 85 degrees and two or three partners who enjoy a little wager. And given a choice I'll take the Arizona golf course in preference to the Colorado ski slopes. On the other hand monitoring during those blustery, cold days has provided some interesting listening that I might have missed had not the winter weather forced me to remain indoors.

During the past month I made two inquiries to other editors. To my pleasant surprise both answered by return mail. In the January issue of the RCMA Newsletter John R Clark wrote a glowing review of "Passport to World Band Radio" and after reading John's report I had to have a copy. The complete address for the book was not in his column and thus my reason for writing. In his reply John added he was sure I would enjoy the book.

In the January issue Hugh Stegman, Editor of Below 30mhz, reported Interpol has been making heavy use of 18756 khz from Japan. Since my monitoring had failed to uncover any sign of Interpol on the channel, wrote for other frequencies he might have. Hugh not only replied by return mail but provided frequencies and all the details I could have wished for. In my opinion Hugh has done an outstanding job as editor of "Below 30 Mhz."

Correspondence from Hugh and John as well as replies in the past from editors for Computer Corner, Beginners Corner, and Federal Government lead me to believe that many of our Editors are very responsive to the membership.

On to the mail bag.

Curtis Harbin, Associate Editor for South Central Public Service, wrote several times during the month. Curtis recently purchased a Pro-2004 and like other owners is delighted with the unit. Several months ago

we provided Curtis with frequencies for Atlanta Center using a remote site in his area, and he confirmed they were in use.

David Cooper, from Eureka, California lives in close proximity to a remote communications site that serves both Oakland and Seattle ARTC Centers. Not only does David have a pipe line to everything taking place here, he also has access to communications from the FSS at Arcadia, at least one low level military route and oceanic contacts. In his letter David mailed several pages of Center listings copied from the FAA airport directory, indicating those he monitors regularly. Extensive aircraft listening normally goes with a major metropolitan area but Dave's letter proves it ain't necessarily so.

Rox Horn wrote twice for information on refuelling frequencies and maps. And while I have seen charts for these tracks, its been years ago. Recently I mailed a request to the Defense Mapping Agency for a copy of their catelog, but I expect it will be several months before I will have this information. In the meantime I provided Rox with a few channels and suggested he write to our Federal Editor for more data. In his reply Rox found no activity on the channels I provided, but reported 279.8 was an active refuelling channel in Western Nebraska.

Zel Eaton MO-048, forwarded two very interesting newspaper clippings. One featured a front page story of the Presidents Airborne Command Post while the other deals with installation of new computer systems in the FAA Air Route Traffic Control Centers. Zel also included several card with data on refuelling and Goodyear Blimp operations. He was alerted to the blimb when he overheard pilots on 122.8 (Unicom) discussing the aircraft. Shortly afterward Zel searched the band and soon found activity on 151.625 mhz. One of the units used the call sign Three Alpha. From discussion on the frequency, Zel is nearly certain he wa monitoring the blimp and its support crew in the chase truck.

Some fifteen years ago good fortune allowed me to ride the Goodyear Blimp Columbia at Oakland covering of one of the Raider games. The experience, though years ago, remains vividly fresh. While nearly as noisy as an airplane, there was a sensation of serenity and calm I've never experienced in an airplane or helicopter. And while my glider time is more recent, the glider and blimp experiences were similar serene, slow and smooth. I would love to fly both one more time.

Zel follows air refuelling operations and commented that he monitored two hookups during the time he was writing to us. The communications were initially on 342.5 then moved to 295.8. Shortly thereafter the recivers asked the tanker to switch off its rotating beacon because of reflections off the clouds. After tanker and receivers disconnected communications shifted to Kansas City Center on 370.9. Zel reports th tankers, usually from Chicago, fly his area frequently providing the the opportunity to monitor refuelling operations.

Dennis Biagioli, our Federal Government Editor sent a copy of his Airport Directory for Illinois as well as a letter recalling pleasant memories as a resident of Colorado Springs. Frequency information from the Illinois Directory appeared in this column about a year ago.

Nick Masotti, OK-045, is a new member of RCMA. Nick makes my day by asking a number of questions. Living near Oklahoma City Nick is within receiving range of Will Rogers Airport and Tinker AFB. He asks what the abbreviation ARINC means? And as most of you know, it stands for Aeronautical Radio Inc. Years ago most aircarriers operated their own radio/telecommunications systems. Later direct pilot/controller radio contact eliminated the need for extensive systems and many were combined with ARINC. Over the continental U.S. ARINC provides the communications link between aircarriers flights and company offices. Over the oceans or remote land areas, ARINC still serves as the major communications relay between air traffic control and aircarriers operating in these areas. Although the USAF has an extensive HF netword, both the Navy and USAF are users of ARINC services. For the most part these services consist of relaying messages and clearances between ATC facilities and military aircraft on these same routes.

Nick asks the best time to monitor aircraft communications. And the busiest times are found in the morning between 7 and 10 AM local time and again in the evening from 5 to 8 PM. Friday and Sunday afternoons are busiest for aircarriers. Nick requested information on maps, charts, books and other publications to provide him a good source of background information. Since he had already purchased copies of the Airport/Facility Directory, Corporate Pilot/FBO Directory and Airmans Information Manual, there was little I suggest to add to his aviation library. Nick included a listing of channels for Will Rogers airpor that appear later.

Brad Carpenter, my source of information for monitoring Dallas/Ft Wort during the time I lived there, wrote to say he will keep us current on activity in the D/FW area. Brad reports that 128.975 is being used fo ramp control, 132.425 is used by Delta and 129.00 is an American frequency.

Laura E Quarantiello, CASD-078, wrote to provide us with the address for Jeppsen/Sanderson in Denver. As most of you know Jeppsen publishe maps, charts, books and flight data used by pilots around the world. The address is: Jeppsen/Sanderson, 55 Inverness Drive East, Englewood Co. 80112-5499. Their telephone number is 303 799-9050. Laura is a pilot and regular contributor to this and other columns in our Newsletter.

Ray Berry, KS-037, wrote to say he grew up in Colorado and though now resident of Kansas remarked he was a frequent visitor to our area. Ray asked if we could help him with public service channels used in Colorado Springs. Referring as always to Police Call, I sent Ray a copy of frequencies I found active in the area. Ray thoughtfully sent us a list of aircraft channels for Salina which are printed later.

Don Shanley, CT-003, asked if we could tell him what the term "Discret Frequency" meant as it is applied to ATC channels. And while the term is normally associated with ARTC Centers, it applies to terminal facilities as well. A discrete frequency is a channel assigned to a specific sector. As an aircraft passes from one area to another the pilot is asked to change frequencies so as to be in radio contact with the controller in whose area he is flying. Normally discrete frequencies will consist of a VHF channel paired with one in the UHF band to communicate with military aircraft. The controller transmits and receives simultaneously on both.

These are frequencies we mentioned earlier.

From Nick Masotti, OK-045, who provides these numbers for the Oklahoma City Area

American	129.20	United	129.30
ARINC	129.40	United	129.50
Western	130.10	ARINC	130.20
ARINC	130.25	ARINC	130.30
Continental	130.90	Eastern	130.95
Delta	131.4	ARINC	131.65
ARINC	131.70	Republic	131.75
Fed Express	131.92	ARINC	132.25
American	132.55	ARINC	132.97
ARINC	133.20	ARINC	132.25
ARINC	133.40	ARINC	134.55
ARINC	135.45	ARINC	135.55
ARINC	135.75		

Tinker AFB	Air Police	163.487/163.537
	Fire	165.662

From Salina, Ks sent by Ray Berry, KS-037

Salina	Tower	119.30/257.7
	Grnd	121.90
	Apch/Dept	134.90/363.2
	Nat Guard	41.7 (Helicopters)

Airport 453.475
Rescue units recently transferred to City by American Air.

Kansas City ARTC 134.90

And once again in an effort to provide frequencies from areas with little member input here are some from Idaho and Montana.

IDAHO

Boise Air Terminal

Tower	118.10/257.8
	119.00
Grnd	121.70/348.6
Apch/Dept	119.60/269.4
	126.90/379.8
Clrnc	125.90/323.2
ATIS	123.90/265.5

Coeur D' Alene

Tower	119.10/308.9
Grnd	121.80
Apch/Dept	125.80/384.9

Idaho Falls

Tower	118.50/257.8
Grnd	121.70
Apch/Dept	134.50.323.0

Lewiston

Tower	119.40/318.8
	125.70
Grnd	121.90

Mountain Home AFB
Boise

Tower	126.20/253.5
Grnd	275.8
Apch	124.80/259.1
Dept	371.2
ATIS	273.5

Pocatello

Tower	119.10/257.8
Grnd	121.90
Apch/Dept	134.50/323.0

Twin Falls

Tower	118.20/398.2
Grnd	121.70
Apch/Dept	118.05/317.7

MONTANA

Billings
Logan International

Tower	124.20/257.8
Grnd	121.90
Apch/Dept	120.50/284.6
	119.20
	135.25/343.7
Clrnc	118.05
ATIS	126.30

Great Falls International

Tower	118.70/257.8
Grnd	121.70/348.6
Apch/Dept	121.10/259.1
	124.15/290.3
	133.40/285.4
Clrnc	134.10/363.8
ATIS	126.60/269.0

Helena

Tower	118.30/257.8
Grnd	121.90
Apch/Dept	119.50/226.3

Malmstrom AFB
Great Falls

Tower	126.20/252.9
Grnd	275.8
Apch/Dept	118.10/259.1
	121.10
	133.40/285.4

Missoula County

Tower	118.40/378.1
Grnd	121.90
Apch/Dept	124.90/387.1
	133.40/285.4
ATIS	126.65

AMATEUR RADIO COMMUNICATIONS

This column is for reporting on amateur radio activities that may be of interest to scanner listeners. Send reports and questions concerning repeater nets, civil emergency systems, packet radio, amateur TV, etc., to:

Gordon West, 2414 College Drive, Costa Mesa, CA 92626

"TUNE IN TO PROPAGATION BEACONS" by Gordon West

You don't need to be a licensed amateur radio operator to take advantage of the 24-hour-a-day propagation beacon system. These unattended transmitting stations allow us to determine band conditions to any part of the world. If we can hear the beacon clearly, the band is considered "open" and suitable for communications and reception to that part of the world.

If you are an avid shortwave listener, the amateur radio beacon system will let you know instantly whether or not you may expect reception to that part of the world. The beacon system is also useful to determine which antenna system is best to pull in those weak worldwide stations.

For our RCMA members with VHF and UHF scanners, propagational beacons may alert you to sporadic-E, F skip, and tropospheric ducting to stations several hundred miles away that normally are not received at all. You may also use these VHF and UHF beacons for determining improvements to your antenna system after a day on the roof.

The following frequency bands offer amateur radio propagation beacon reception:

20 meters	14.100 MHz using time rotation
15 meters	21.150 planned beacon frequency
10 meters	28.200 MHz through 28.300 MHz
6 meters	50.003 MHz through 50.100 MHz
6 meters	52.200 MHz through 52.500 MHz, FM, Australia and New Zealand
VHF 70 MHz	70.030 MHz through 70.130 MHz, United Kingdom
2 meters	144.05 through 144.06, ARRL beacon band plan
2 meters	145.810, Oscar 10 satellite beacon
2 meters	145.987, Oscar 10 satellite beacon
VHF 220 MHz	220.05 through 220.06, ARRL beacon band plan
UHF 450 MHz	432.070 through 432.080 MHz, propagation beacons
UHF 900 MHz	903.070 through 903.080, CW beacons
UHF 1200 MHz	1296.07 through 1296.08 MHz, CW beacons
SHF 10 GHz	10,300 through 10,400 MHz, microwave beacon region

There are hundreds of beacons operating 24 hours a day on these ham bands. All beacon stations operate with a Morse Code identifier of their call sign. If you know the amateur radio worldwide call sign prefix system, and if you can read Morse Code at about 5 wpm, you can easily identify where the station is transmitting from.

Most beacons operate with less than 100 watts of power output into omnidirectional antennas. The VHF and UHF beacons often operate with less than 10 watts of power. Microwave beacons operate with less than 1 watt of power output!

The best directory of transmitting beacons is found in the ARRL Operating Manual, an American Radio Relay League publication, $15, available at most amateur radio stores or directly from the ARRL, Publications Division, 225 Main Street, Newington, CT 06111.

Beacon operators encourage your reception report. They many times

confirm your reception with an attractive QSL card. And the most popular beacon system for shortwave listeners is the 20-meter time-shared transmitting stations on exactly 14.100 MHz, CW.

Once you hear these beacons, you won't mistake their characteristic transmitting pattern. Each station broadcasts for 60 seconds. The last 10 seconds is a continuous tone that makes it handy for you to test your antenna system.

Nine stations throughout the world take turns transmitting, one after the other, with one minute of silence. Each station transmits its beacon call sign in A1A, Morse Code. All antennas are omnidirectional, and effective radiated power output is an even 100 watts. They are on the air, 24 hours a day, and you should try and see how well they come in on your shortwave receiving system.

MINUTE	CALL	LOCATION
00	4U1UN/B	United Nations, New York City
01	W6WX/B	Stanford University, California
02	KH6O/B	Honolulu Community College, Hawaii
03	JA2IGY	Japan Amateur Radio League, Japan
04	4X6TU/B	Tel-Aviv University, Israel
05	OH2B	Helsinki Technical University, Finland
06	CT3B	Madeira Island
07	ZS6DN/B	South Africa
08	LU4AA/B	Radio Club of Buenos Aires, Argentina
09	Silent	

Send all beacon reports to W6RQ, Al Lotze, 46 Cragmont Avenue, San Francisco, California 94116, USA.

Good hunting!

AIRCRAFT FREQUENCY DIRECTORY

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BEGINNER'S CORNER

If you are new to monitoring or have a question about something you don't understand, please write to me at the address given below, and I'll try to answer you. When posible, your questions and answers will be printed. For those who wish an immediate reply, please send a self-addressed, stamped envelope.

John P. Leth-Nissen, Rt. 1, Box 101, Benton, KS 67017

YOUR MAILBOX: December produced a lighter than average mailbag, hopefully because everyone was fully occupied in seasonal festivities and the additional load of radio traffic brought on by winter. Two additional letters from Malta and some initial letters to the Member Contact Registry Service did make the trip. My personal thanks for the Christmas cards!!!! In the past couple of weeks I've been getting a handle on my new Personal Computer and assorted peripherals so correspondence and the column may be enhanced in the future with better print as well as graphics.

As always, inquiries and suggestions to BC will receive a direct response (no waiting). Member input that meets the test of general interest is used to formulate columns and is the exclusive determinant of directions taken by the 'Corner.' So.....all it takes is a letter to put BC to work for you!

++

MEMBER CONTACT REGISTRY SERVICE: BC is involved in setting up and maintaining a direct path whereby interested members can easily initiate contact and correspond with one another on topics of mutual interest. To get online with this service, Send BC a SASE and include the following information: **1. MEMBERSHIP #, 2. MAILING ADDRESS, 3. NEWSLETTER COLUMNS OF INTEREST.** The Registry will be an ongoing database, with current printouts available SASE to listed members only. Strict confidentiality will be observed and member data will be deleted on request. A first edition printout will be sent out as soon as regional and/or topic links are reasonably established. This service hopes to link interested members and provide a forum for the formation and growth of local groups. Considering the cost of a stamp, why not be in touch????

++

INQUIRY: Malta-001 provides a chain of inquiries that when taken together could provide some important insights.

Synoptically his first letter explains that he resides on the bottom floor of a 3 story building and experiences poor base reception and would like a schematic for an antenna preamp (cannot order a commercial unit due to import restrictions). The second letter asks about the feasibility of using two antennas (a discone and a VHF whip) simultaneously. The third letter discloses the fact that a previous base installation had provided poorer reception than that obtained with the same reciever used in mobile operation.

RESPONSE SYNOPSIS: The third letter provides a most important piece of information. At the minimum, a base antenna installation should equal and most invariably surpass mobile reception. When base operation is poorer it provides the strongest indication that the antenna or cable installation is defective. One of the prime suspects would be a short in the antenna or cable driving the input signal to ground. The other prime suspect would be an open circuit in the cable or one of the connectors so that the signal doesn't make a good trip to the front end of the receiver. As the receiver worked well with a mobile antenna, it could be eleminated as a possible culprit. BC's first advice was to run a series of continuity checks on the antenna installation before additional antennas were attempted. (Note: Those not familiar with

continuity checkers and/or Volt-Ohmmeters in this application are invited to receive a 'how to test your installation' printout SASE).

On the subject of having two antennas on-line to a single receiver, this was not recommended for a variety of reasons. The first problem is that of impedance mismatch. From a previous column, it was stated that maximum power transfer occurs when the output impedance of an antenna matches the input impedance of the receiver. Impedance varies with frequency (among other things), but receivers can usually accomodate variations around a range centered at 50-75 Ohms. Antennas in parallel would provide 25-37 Ohms output impedance unless coupled via a balancing transformer. Acheiving a reasonable match is feasible, but the resulting configuration could suffer from other technical difficulties. When antennas are combined, it is usually done to form an array directed at a specific frequency. The array elements are sized and located with respect to proper phasing. When combining dissimilar elements, such as a wideband-omni and a VHF-omni, they may well work against each other. It is entireable predictable that the VHF whip will make for noisier UHF and that the higher VHF gain will not be realized. As a practical matter, the discone by itself is an excellent choice as its gain characteristic is flat over a span of decades (uniform gain over a very wide range of frequencies).

When two antennas are used to drive one receiver, usually only one antenna at a time is selected by a coaxial switch. Typically one of the antennas is general purpose, such as a wideband omni-directional antenna. The second antenna would be a special purpose antenna, such as a directional beam or a narrow-band antenna.

There are a good number of wideband antenna preamps directed toward the monitoring market. In the case of import restrictions or lack of convenience, a Television Antenna Preamplifier is cost effective and a very suitable substitute! The frequencies ranges allocated for USA television range from a low channel 2 around 60MHz to a high channel 69 in the neighborhood of 800 MHz. TV antenna amps are easy to come by (nearest Radio Shack etc) and shouldn't raise any official eyebrows. If possible, select an amplifier with adjustable gain so strong signals won't be overdriven.

NOTE: To run two receivers from one antenna, there are a number of RF combiners directed toward the monitoring market. Television Distribution Amplifiers are an acceptable substitute for maintaining signal strength and achieving proper isolation between receivers. Whenever TV antenna componenets are used, be sure that they are UHF rated (most are).

++

INQUIRY: LA-049 Inquires as to the utility of connecting a Citzens Band Base Antenna to his portable "Pro-31" scanner for base usage?

RESPONSE: CB Antennas are cut (sized) for optimum performance in the frequency domain around 27MHz. The Pro works at 30-50Mhz (some utility in this range), 138-174Mhz and 380-470Mhz. CB antennas often have a shunt capacitor which acts as an electrical short to higher frequencies and would have to be removed before the upper frequencies could come through. Removing this capacitor will degrade the antenna's performance for subsequent use with any citizens band transciever. An additional consideration is that even a small CB base antenna like a quarter wave groundplane is quite large which makes installation unnecessarily imposing and never really does a good job on UHF. If the antenna is already up, give it a shot. However, for not too many dollars, you could more easily mount a wideband antenna and probably achieve more of what you a really hoping to get.

++

HANDLING MONITORED TRANSMISSIONS: HOW DO YOU SPELL 'Order out of Chaos?' Answer ..> **LOG** (List of Goodies)! In order to get a sensible grip on the chaotic morass present in your local RF spectrum, some organized record keeping can circumvent a lot of frustration. As BC said last month, there is no standard system, so whatever works for

your application is best. This month BC will discuss some types of information you might want to keep on an index card system.

A popular concensus is to maintain files with one frequency per index card (page or record). The frequency should have a visible location such as an upper corner or first entry. In this way your file of active frequencies can first be sorted in ascending order as a whole or by user. Following from this concensus, the remaining items are subject to debate as to prominence, utility and order of entry. The next record element is usually some description of the frequency user.

The entries I use describe first the class of user, then the user name. Example: POL - Wichita PD, LOC - Sedgwick Emergency Commision, FED - USDA, etc. Usable lists of class abbreviations are available in publications such as Police Call and a list available from the FCC. Giving this information prominent format visibility can really make sorting a filing useful and simple.

The third element that really makes sorts useful is a prominent location for the Station Call Sign! In times past, the FCC often assigned different call signs when a user added new frequencies or station changes. In more recent times, the goal is to provide single call signs so sorting a file by call sign can give you a good picture of user configuration. Example: Cha.1,2,3,4,A,B, Tac 2 etc. This is particularly true for the case of Agency users that may operate lowband, VHF and/or UHF networks. A header as follows could be handy:

155.340 MED - Hopital Emergency Ambulance Radio KTN 464

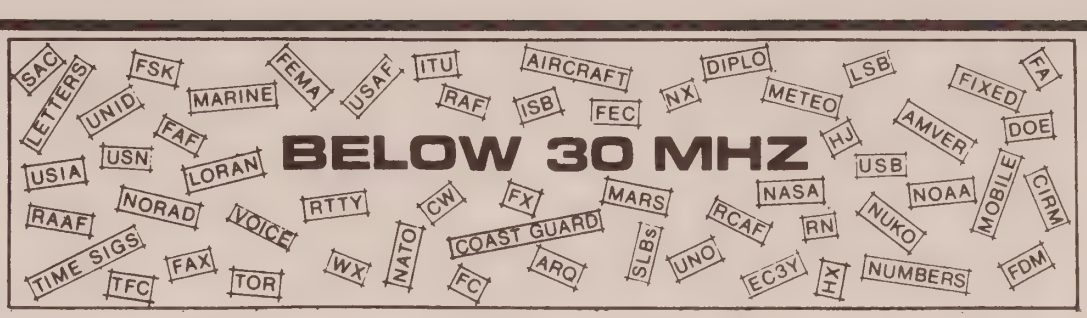
A cardex style system with just this minimal information will go a long way toward organizing local traffic and may well be all that you require. There are some additional non-technical tidbits that may want to be in your record keeping system. A **TRAFFIC** catagory indicating user's channel designation + Dispatch, Page, Mob<>Mob etc., ices the definition of multifrequency configurations. In this catagory I also assign a number on a scale of 1-3 indicating the amount of activity on that channel. One indicates infrequent or intermittent usage, Two indicates moderate activity in the range of at least several transmissions per hour and Three means the channel is consistently busy. An **OPERATIONS** catagory could well include how the station identifies itself (verbal or autokey), On Air and Radio Check Times. Knowing when radio checks are held is particularly useful as periodic monitoring during these times can keep you abreast of system changes and expansions.

Next month BC will expand on some additional types of information that could be added to these station record cards. The main idea is to collect information that is useful to your purpose and give prominent visibilty to data you may wish to sort by. These Station records can best be assembled from a Monitoring Notebook where you can jot all kinds of stuff while actually monitoring traffic. While getting started on this kind of project may seem tedious and require more discipline than you wanted from the hobby, the return on effort can be enormous! Once underway, this kind of project really takes care of itself allowing for relaxed monitoring in a highly productive mode. Gofer-it and enjoy!!!!!!!!!!!! John KS-036

RCMA has a Telephone Number

The new RCMA telephone number is (714)545-9551. It's 'manned' by an answering machine, and while it's been established for RCMA members, its use is limited. You may leave a message concerning delivery or renewal problems; you cannot use it to request club information or order back issues. Appropriate response will be made by letter or postcard, not by telephone. Any call regarding a membership problem MUST be accompanied by your membership number.

Please remember that it is a toll call, so be sure before you dial that a written communication won't do just as well.



This column is for HF AM, CW, SSB,RTTY and FAX reception reports, notes, articles, and questions related to HF utilities. Services covered in this column include aeronautical, coastal/marine, weather, government, military and 'spy' stations—essentially everything except broadcasting, CB and amateur radio.

Hugh Stegman, 4354 Coolidge Ave, Los Angeles, CA 90066

Howdy! Welcome to the hemisphere below. Let's get right to the frequencies, since there are a lot of them.

Aero Mobile:

Major aero mobile bands are above 4650, 5480, 6525, 8815, 10005, and 13200 kHz. They are used by aircraft and airport stations when distances are too great for VHF. Nearly all comm is in English, the official ATC language, though others are heard too. Many frequencies are regional ICAO traffic control channels. Others have private stations owned by ARINC, a joint company already well known to VHF aircraft listeners.

The military sections of the bands are well-defined, and thus give a clue as to what is on an unknown frequency. Coded ID's are common. Those with one or two words ("Abnormal", "Furious", etc.) are USAF, while the "Bravo-one-foxtrot" variety are U.S. Navy.

The worldwide weather broadcasts are called VOLMETs, I believe from a contraction of the French "flying weather." Their schedules are widely published, making them good propagation indicators, or just fun DX'ing. Anyway, you might want to know the weather in Karachi or Auckland someday.

In any event, I have received a contribution from a member who desires anonymity. He has sent along a list of his favorite aero frequencies, to which I have added the use when known. All are USB:

2899	[ATC-type activity heard here. -ed]
3016	[Shanwick, UK monitored here; ATC]
5547	[ICAO; Pacific & Honolulu enroute ATC]
5550	[ICAO; Caribbean]
5574	[ICAO; central Pacific]
5598	[ICAO; north Atlantic]
5616	[^ same as above ^]
5640	[probably Shannon VOLMET]
5696	[Busy USCG air ops.]
6577	[ICAO; Caribbean]
6640	[Long Distance Operating Channel (LDOC); these are usually run by ARINC]
6655	[ICAO; probably Japan/north Pacific]
6673	[??????????????]
6679	[VOLMET; Honolulu, Hong Kong, Tokyo, Auckland]
6705	[Canadian AF; a/c ID as "Military" + number]
6723	[??????????????]
6761	[SAC "Quebec" frequency]
8825	[ICAO; north Atlantic]
8828	[VOLMET; simulcasts 6679 & 13282]
8843	[ICAO; mostly a/c enroute to or from Honolulu]
8861	[ICAO; Africa, mostly EE]
8864	[ICAO; north Atlantic]
8903	[ICAO; north Pacific]

9023	[SAC; not as busy as 9027 "Romeo"]
10048	[ICAO; north Pacific]
10057	[VOLMET; southern Africa, some FF]
11176	[USAF worldwide]
11233	[Canadian AF, like 6705]
11282	[ICAO; mostly enroute to/from Honolulu]
13215	[USAF, worldwide]
13241	[SAC "Sierra" frequency]
13261	[ICAO; central Pacific]
13282	[VOLMET; simulcasts 6679 & 8828]
13291	[ICAO; north Atlantic]
13306	[????? Some Chinese activity noted]
13354	[?????????????]

Keep in mind that most aero frequencies are dead until someone needs to use them. Keep listening. Memories are useful here.

USAF ID's:

Many publications run long lists of these. Here are a few:

Abnormal 10	Emergency comm at Vandenberg AFB
Cape Radio	NASA & USAF at Cape Canaveral
Crown	White House communications
Discard	22nd AF at Travis AFB
Dropkick	SAC HQ at Offut AFB
Executive 1 Foxtrot	Commercial flight carrying First Family
Fireside	TAC at Langley AFB
Format	21st AF at Scott AFB
Furious	MAC control, South America
Gull, Teal	Weather recon, FL ("Hurricane Hunters")
Hilda	MAC (Military Airlift Command)
Looking Glass	Airborne command post
Mainsail	Tac callsign used to break GCCS net
Marine 1	USMC "Nighthawk" when President is aboard
Nighthawk	Helicopter in Marine One group
Orion	Atlantic & Pacific missile ranges
Raymond (+ number)	Tactical Air Command (# designates base)
Ringmaster	NORAD CP inside Cheyenne Mtn
Riot Control	Like Orion
SAM	Special Air Mission (VIP's)
SAM 26000	Presidential backup aircraft
SAM 27000	Like Air Force 1, President not aboard
SAM 86971	Secretary of State
Skybird	SAC version of "Mainsail"
Skyking	Ground station(s) with coded orders

These don't change, so they are not tac ID's. Real tac callsigns are generated somewhere in the National Security Agency, and change daily or with termination of an exercise. Some are collective calls, such as giving a group of aircraft the same name.

Security is obviously a concern with HF radio, hence much traffic contains a challenge/ authentication procedure. The authenticator is a pair of letters or numbers that means something on a code table, thus it can be changed with each transmission.

More on KMI:

KMI is the AT&T "High Seas" telephone station in Inverness, CA, near San Francisco. It works cruise ships and others on these fqs:

channel #	coast (kHz)	ship (kHz)
401	4357.4	4063.0
416	4403.9	4109.5
417	4407.0	4112.6
804	8728.2	8204.3
809	8743.7	8219.8
822	8784.0	8260.1

1201	13100.8	12330.0
1202	13103.9	12333.1
1203	13107.0	12336.2
1229	13187.6	12416.8
1602	17236.0	16463.1
1603	17239.1	16466.2
1624	17304.2	16531.3
2214	22636.3	22040.3
2223	22644.2	22068.2
2228	22679.7	22083.7
2236	22704.5	22108.5

NOAA weather for the eastern Pacific is broadcast at 0000, 0600, 1300, 1500 and 1900 UTC on some of these channels.

Tuning tips:

Keep in mind that utility stations are traditionally listed by carrier frequency. Some receivers will read this when tuning SSB or CW, while others may go a kHz or so either way depending on how the IF or BFO are offset. Check your manual. Also, utilities may shift their freqs a bit for interference (the famous "plus or minus QRM").

That's all the room. 73 until next month.

BUSINESS, ETC.

This column is for reporting frequency and radio system information for the following services: business, forest products, petroleum industry, special industrial, manufacturers, motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.) and all school & college related frequencies.

Send business monitoring information west of the Mississippi to:
Cliff Polkinghorn, 2580 Parkside Drive, Union City, CA 94587

WELCOME TO MARCH 1988--BUSINESS "ETC" WEST. THIS MONTH WE WILL TAKE A LOOK AT SOME FREQUENCIES FOR UTILITIES, HERE IN CALIFORNIA. (I'D LOVE TO PRINT SOME FROM OTHER STATES, IF SOMEONE WOULD SEND THEM IN).

THIS INFO COMES FROM MY FRIEND TERRY

PGE	GAS	ANTIOCH	48.36
PGE		ARMOLD	158.235
PGE		AUBERRY PEAK	153.710
PGE		AVENAL	153.515
PGE		AVERY	158.235
PGE		AVILA BEACH	451.200
PGE		AVILA BEACH	451.075
PGE		AVILA BEACH	451.125
PGE		BAKERSFIELD	48.82
PGE		BAKERSFIELD	49.28
PGE		BAKERSFIELD	153.590
PGE		BURNEY	457.900
PGE		BURNEY	158.250
PGE		BUTTONWILLOW	153.590
PGE		CHICO	153.650
PGE		CHICO	47.80
PGE		CLEARLAKE	158.205
PGE		COALINGA	153.710
PGE		COLUSA	153.590
PGE		CROCKETT	451.150
PGE		CROCKETT	153.485
PGE		EMIGRANT GAP	158.190
PGE		EMIGRANT GAP	158.130
PGE		EUREKA	158.175

PGE	FAIRFIELD	153.605
PGE	FALL RIVER	452.900
PGE	FALL RIVER	158.250
PGE	FORT BRAGG	158.205
PGE	FRESNO	153.515
PGE	FRESNO	153.650
PGE	HALF MOON BAY	153.560
PGE	KING CITY	153.635
PGE	LAFAYETTE	48.42

THATS IT FOR THIS MONTH

CLIFF

Send business monitoring information east of the Mississippi to:
Brandt Niemuth, P.O. Box 541, Rosemont, IL 60016

Welcome to yet another chapter of life in RCMA: On to the goodies; From a new member in Deerfield, Ill, Joe C Shultz (II-357) comes;

471.7625	WIE 348	Deerfield Electric Co	
463.75		Deerfield Garage	
854.0625	WQP 599	Deerfield News Agency (newspaper delivery - ed.)	
35.96		Ford Pharmacy (deliveries)	Deerfield
154.515	KZZ 293	Lake Forest College	Lake Forest
464.325		Northbrook Court (Mall Security)	
154.57		Deerfield High School	

Also a letter from Lance S Micklus (VT-005), I apologize for not getting it in sooner.

Below are several frequencies for the Burlington, Vermont area:

152.360 St. Michael's College in Winooski uses this to tone out its security, fire department, and rescue squad. (Simplex, tone paging)

151.805 I.B.M. security in Essex Junction. (Simplex)

155.430 University of Vermont in Burlington, Vermont, security. (Simplex)

48.540 Green Montain Power: Maintenance (Repeater)

451.525 New England Telephone: Maintenance (Repeater)

45.400 Chittenden County Transportation Authority. Used by the buses in the Burlington area to keep in touch with each other and the dispatcher.(Simplex)

461.225 Federal Express Dispatcher: Pickup, delivery, and maintenance. NOTE: This repeater system has a 3 second time out delay. Scanners should be programmed with *DELAY OFF*.

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor listening and questions to:

Rob Berezowski, 310-4045 Rae St, Regina, Saskatchewan, Canada S4S 6Y8

Greetings from Regina everyone and welcome to the March 88 Canada column, even though as I write this it is just before New Years. I'm just recovering from some sort of flu. What a way to spend Christmas! I did have some turkey, so things weren't all that bad.

The Olympic Torch Relay is well under way, making its way through southern Ontario. The Petro-Canada sponsored relay has just past the

halfway mark of the journey. After the official opening ceremonies, the Olympic flame will be used to light torches installed at all of the venues. In addition, there is a large torch that has been installed on top of the Calgary Tower. I was fortunate enough to be in Calgary when they tested the flame on the Tower. The torches are all natural gas powered, but the torch on the Calgary Tower is very large. The intention was for the flame to be visible anywhere in the city. It was not easy to install the torch 600 feet above ground. A helicopter had to be used, and a burner had to be custom engineered on the ground. Normally natural gas burns with an almost invisible blue flame. A special burner had to be designed to make it burn yellow. The official supplier of these flames is Canadian Western Natural Gas, and their staff were responsible for the design, construction, and installation of all of the flames (except the hand carried torch being relayed across the country, powered by a gel fuel, which was designed by the National Research Council).

Other problems were encountered in constructing the burner on the Calgary Tower. The Calgary Police Service uses the Calgary Tower as a mobile radio base repeater site. They have several UHF (462 MHz) transmitters installed up there, connected to a single omnidirectional dipole antenna (a standard 4 dipole ring type antenna array). This antenna was going to get in the way, probably scorched and/or melted in the heat. The Calgary Police were very insistent that there be no disruption of service to the radio transmitters. The City Police do have other radio transmitter sites, but I guess radio coverage around downtown would suffer if this radio site was taken out of service.

The solution was to mount the antenna on a tall, insulated pole well above the burner flame. The transmission line connecting the antenna to the radio was run inside the pole. Close examination of this pole can still show some scorch marks getting close to the antenna. Let's hope it doesn't get too hot up there. The flame will be lit 24 hours a day during the Olympics. It would be very unfortunate if the Calgary Police lost a major radio site during the 3 weeks they need it most.

I have some more Olympic updates mailed in by Harry (CANA-074). He sent in a letter detailing some information he has monitored on the new Alberta RCMP PACS (Province of Alberta Communications System) VHF radio system. Harry was recently on a trip to the Calgary area, and reports the following frequencies and channel numbers in use:

Alberta RCMP PACS	155.430 / 154.770in Ch A6
	155.445 / 154.785in (Not yet heard)
	155.460 / 154.800in Ch ?
	155.520 / 155.070in Ch B1
	155.535 / 155.085in Ch A8?
	155.550 / 155.100in Ch ?
	155.565 / 155.115in Ch ?
	155.580 / 155.130in (Not yet heard)
	155.595 / 154.905in (Not yet heard)
	155.700 / 154.890in (Not yet heard)
	155.790 / 154.950in Ch A1, A3 or A4
	155.805 / 154.965in (Not yet heard)
	155.820 / 154.980in Ch B6
	154.680
	155.040
	155.310
	155.430
	155.640
	155.670
	156.030
	156.090

Harry reports that the radios being used by the RCMP have some type of scanning head, capable of scanning all of the channels in the home group. In addition to the channel numbers mentioned above, Harry has also heard references to Tac 6, 7, 8, and 9. All of the old frequencies are also in the new radios, labelled as K-Div A,B,C,D,5,2,3,4,5 (The Alberta provincial RCMP have been designated as the K Division). When the officer wishes to speak to the control centre, all he has to do is push the RTT (Request To Talk) button on the radio control head. The new radio automatically identifies itself

to the dispatcher, with the number of the unit that is calling appearing on a computer display in front of the dispatcher. It is no longer necessary to say "10-61" (Unit calling identify) for each call, because the unit number is right in front of the dispatcher. Another radio code that has changed is 10-71. It now appears to mean "Standby for Complaint," rather than Aircraft accident.

While in Calgary, Harry monitored the following frequencies in use:

RCMP PACS - Calgary	155.430	Simplex (Calgary)
	155.520	B1 Raspberry Ridge rptr (Turner Valley secondary)
	155.535	(heard near Calgary)
	155.550	Plateau rptr (Cochrane)
	155.565	(heard near Calgary)
	155.790	A1 or A4 Calgary rptr (Cochrane, High River, Strathmore, Airdrie)
	155.820	B6 Aldersyde rptr (Turner Valley, Okotoks, High River)
		B6 Sheerness rptr (Hanna)

The Red Deer Subdivision has now converted over to PACS. From Harry's home in Edmonton, he is able to monitor repeater B6 155.820 located on Bear Hill. This repeater serves Ponoka, Bashaw, Camrose, and Wetaskiwin. Bashaw is also occasionally using A8, which may be Heisler repeater on 155.535. Channel A3 serves the Red Deer City area, possibly 155.790. The central dispatch in Red Deer now identifies on the radio as "Red Deer O.C.C." (possibly Operations Control Centre).

The Edmonton RCMP sub-division is scheduled to convert to the PACS system in March 88.

Harry has confirmed a couple of new frequencies for Edmonton. 122.450 is used by the Edmonton Ambulance Authority to communicate with Medevac (air ambulance) flights inbound into Edmonton. Requests are made by the air crew to have a ground ambulance standing by when the plane lands. Patient status reports are also relayed on this frequency. The Nisku Fire Department is now operating on 156.240 / 159.120in. Nisku is a community just south of Edmonton, near Leduc. It is possible that the Leduc Fire Dept may also have access to this new frequency.

Harry also sent along a couple of articles. I do not have space to cover them in detail, but I will give a summary of each article, and those members that are interested can obtain a copy from me for an SASE. The first article appeared in the Edmonton Sun on Nov 4/87, and deals with the Canadian Forces Detention Barracks (military prison). The prison is located in Edmonton, and is very strict in discipline. I talked about the prison in my April 85 column. The feature article gives a detailed look at the life of a prisoner inside this institute.

The second article appeared in the Radio Communications Report of Sept 15/87, and discusses some legal disputes between Motorola Inc in the U.S. and NovaTel in Calgary. The main issue in the dispute are patents regarding some cellular telephone products. Another dispute that has emerged is that Motorola is also alleging that several Japanese cellular phone manufacturers and NovaTel are dumping cellular phones in the United Kingdom (that is selling the units way below cost).

Thanks a lot for all of your information, Harry. Now we move on to a letter from Bruce (CANA-019). He sent in a couple of clippings on the Cantel cellular telephone service being provided in the southern Ontario area. One clipping from the July 18, 1987 issue of the Toronto Sun included a sketch map showing the Cantel coverage from Windsor to Quebec City. They are claiming that this corridor is presently the world's longest cellular corridor, giving continuous coverage along 1,300 km.

The other clipping is from the Peterborough Examiner of February 27, 1987, and talks about the introduction of cellular service in Peterborough by Cantel. In the Peterborough area, Cantel uses two base transmitter sites. One is at the CHEX tower, while the other site is in Pontypool. Bruce passes on that Bell Cellular (the telephone company) is probably using the Bell radio site just east of Omemee to provide coverage to the Peterborough area. This is where the VHF mobile telephone system operates.

Bruce used to live very close to the CHEX tower, which is also used by several other services. The Peterborough City Police, the Ministry of Transport (Toronto Airport Air Traffic Control), and a number of business and government users all rent space on the tower. Bruce was getting interference on his cable TV everytime the police keyed their mikes (on converter channel 17 138 - 144 MHz), or when an aircraft called Toronto (on converter channel 16 132 - 138 MHz). An unidentified user caused trouble on converter 21 162 - 168 MHz.

Bruce also passed along a clipping that appeared in the Vancouver Sun of October 3, 1987, and concerns a coronor's inquest into the death of Phillip Martin Broadbent from Maple Ridge, B.C. Broadbent was killed in a shootout with members of the RCMP Emergency Response Team (ERT team) after a 13 hour siege. During the operation, radio communications were seriously disrupted because the Department of Communications (DOC) had mistakenly assigned Winvan Paving Ltd the same radio frequency as was being used by the ERT team. Several times during the stakeout operation, the RCMP were cut off by Marcello Pandolfo, a supervisor at Winvan Paving because "he had a job to do," and he didn't know the stakeout was still going on. Winvan Paving was warned several times by the RCMP to stay off the air, and that Pandolfo was told by Winvan to cooperate with police.

The inability of the ERT team officers to communicate with each other resulted in the unfortunate ending to the stakeout, where the culprit was killed, and one of the officers was wounded. Several recommendations were made by the coronor's jury, including making sure DOC radio inspectors conduct a computer "string" search for all future frequency assignments before they are issued. A string search is a complete DOC computer search to determine if the frequency assignment is completely clear. This search was not done in the case of Winvan Paving, and they happened to end up sharing the ERT team frequency. It is standard practice for business users to share radio frequencies, but public safety users are of course entitled to exclusive use of their frequencies. Another recommendation was for all radio licence applicants to be required by law to instruct their employees on correct radio procedures, particularly in emergency situations.

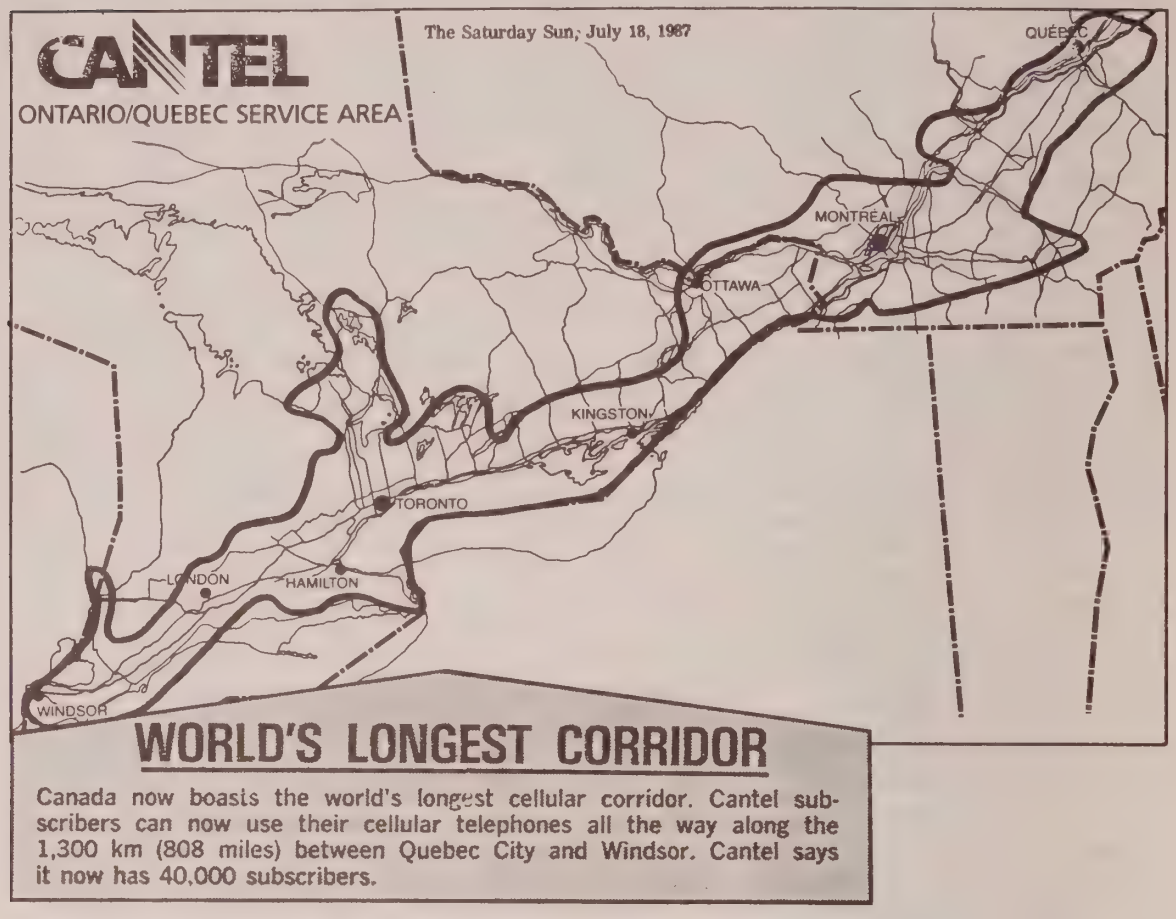
Thanks for the material Bruce. My next letter comes from Dave (CANA-037). He has just purchased himself the Regency TS-2 75 channel scanner. Dave is quite impressed with the unit. It really does scan 40 channels per second, and searches 50 channels per second, which is a vast improvement over the MX7000 Dave also owns. The only drawback of the TS-2 is the lack of flexibility in selecting modulation mode. The MX7000 allows you to select any mode (AM, Narrow FM, or Wideband FM) on any frequency. Dave says that the keyboard lighting and green fluorescent display are very acceptable. Dave is using his TS-2 to scan the cellular telephones in his area.

In a move to improve communications, the Windsor Fire Department is installing cellular phones in the cars used by the Batallion Chiefs, the Assistant Deputy Chief, the Deputy Chief, and the Chief. They will be used to help stay in contact with Fire Dept Headquarters, and the radio dispatchers. Apparently they feel that the cellular telephones will provide more privacy.

Dave also reports on the problems encountered by the Windsor Fire Department in obtaining a new frequency authorization for the input frequency of their new repeatered radio system. The Fire Dept finally got their permanent frequency. The DOC gave them several previous assignments, but each time the Fire Dept got too much interference from other users in the area, mostly from Detroit and the nearby suburbs. That part of the mobile radio spectrum must be quite congested in the Detroit/Windsor area. I can't understand why the DOC computer studies didn't predict the interference from each of the previous assignments. Anyway, the crystals for the new repeater input frequency are now being installed in all of the Fire Dept radios, and the new repeatered radio system should be in operation soon. Unfortunately Dave does not yet know the frequency, but I'm sure he will pass it on to us as soon as it is found. Thanks for the information Dave, and I hope we will hear from you again soon.

I have a big list of frequencies and other information sent in by Chris (CANA-127), a new member of RCMA. Chris lives in Fredericton, New Brunswick, and sent in some very good information for that part of the country. Unfortunately I don't have much room left this month, and

the mailing deadline is fast approaching, so I'll have to include the material next month. Until next month, best wishes to you all.


CANTEL
ONTARIO/QUEBEC SERVICE AREA
The Saturday Sun, July 18, 1987
QUÉBEC
MONTREAL
OTTAWA
KINGSTON
TORONTO
LONDON
HAMILTON
WINDSOR
WORLD'S LONGEST CORRIDOR
Canada now boasts the world's longest cellular corridor. Cantel subscribers can now use their cellular telephones all the way along the 1,300 km (808 miles) between Quebec City and Windsor. Cantel says it now has 40,000 subscribers.

INTERESTED IN BECOMING AN RCMA EDITOR?

If you are interested in joining the RCMA staff, write the General Editor for a formal application form and get on the list. You can get on the consideration list right now by sending a stamped, self-addressed envelope for an application form!

RCMA Staff Editors are required to write a monthly column on their assigned subject. In return for their writing efforts, Staff Editors receive free RCMA membership for the duration of their service. Their NEWSLETTERS are also mailed by First Class Mail for much more prompt delivery. You must be able to type and have a good printer or typewriter, as writing the monthly column is your main responsibility!

RCMA Associate Editors are required to collect and submit materials on their state monthly. In return for this service, you will be the RCMA representative for your state, and your name and address will be listed in the Associate Editor Directory so your state members can send materials to you for forwarding to the Staff Editors. Since this is a new program, no free or reduced membership has been approved by the Board for your volunteer efforts, but getting to know the members in your state and getting to review the information before forwarding is certainly rewarding in itself. You do not need to type or have a printer for this club position.

We want devoted workers, not information collectors. If you are not willing to fill the monthly requirements please do not apply! You must write for a formal application to be considered. If you are interested in ANY club position, whether it is presently occupied or not, write today for an application and get your name on file! We normally select replacement personnel from the wait list file. There is a lot of personal fun and satisfaction from holding a club editors position!

contact info wanted

This column has two purposes: to help members contact each other, and to help member obtain directly from one another information on various subjects related to 2-way communications monitoring. If you would like to meet, converse or correspond with, other members by telephone, letter, or cassette, this column is the place to state your interest. Remember—those who respond will do so directly, so be sure to provide your phone number, the best time to be called, and/or your address. Write to:

Scott Mattson, 2820 Bridge Ave, Point Pleasant, NJ 08742

Requests for copyrighted material or information considered 'sensitive' by RCMA will not be printed in this column.

CONTACT WANTED: I would like to correspond and exchange frequency info with RCMA members in Allegheny County, Pittsburg, PA area.
BOB APPLE (PA-233) 1312 Hillsdale Dr., Monroeville, PA 15146

INFO WANTED: I would like all of the frequencies available for the entire state of Louisiana. Especially interested in business, utility, etc., but also need public safety. Will be glad to swap your info for mine.
DEWAYNE SHARBONO (LA-059) 2025 Edgewood Dr., Bastrop, LA 71220

INFO WANTED: Ten codes and Clearing codes for Norfolk, VA police department. Also any other Ten codes for the tidewater Virginia area. Any info appreciated!!
THOMAS A. BAKER (VA-099) 3832 East Ocean View # 4, Norfolk, VA 23518

INFO WANTED: I would like to receive frequency information used at the McGhee-Tyson Air National Guard Base (Knoxville, TN) by these units: 134th Refueling Group, 110th/119th TAC Control Flights, and the 228th Combat Communication Squadron. Have Knoxville area and Tennessee frequencies to swap and exchange.
STEVE GALYON (TN-040) P.O. Box 22790, Knoxville, TN 37933 or call (615) 966-6328

WELCOME to another month of Digital Communications and Computer Corner. Not much new to report on this end. I did finally receive my Icom R71A and am now working with it and the MFJ RTTY/CW computer interface. Interesting to say the least. No user input (*again*) this month. I kind of feel like the Maytag repairman, but alas, that is life. I do have to discontinue the disk and shareware/files offer that I made last month. The volume of incoming mail requesting programs and listings is getting out of hand. Seems that everyone wants the listings/programs but about half of the requests didn't send me a diskette, return postage, etc so I have to pull the plug on that one. Sorry about that.
I do have a promise of some user input (*maybe*) next month about some digital radio systems that a local department is using (right Steve?).
This month, I have a couple things which might be of interest to some people. The first is radio linked handheld terminals for real time data communications.

Real Time Data Communications on 450 Mhz - 470 Mhz

I found a local company that uses the handheld terminals in their warehouse when I went to pick up an order. I noticed the terminals mounted on fork lifts that communicate with an IBM type system for a variety of functions. I pursued it a little further and talked with the warehouse manager to get a little more information on the system.
The company uses LXE mobile computer terminals mounted on warehouse vehicles and linked to the mainframe computer by radio frequency. The installation of mobile terminals eliminates wire connections between terminals and host computer, delays in inventory updating and best of all paperwork. Before the system was installed, it took approximately a week to receive and ship one order. The warehouse handles approximately 2,000 orders in a week.
The lift trucks are equipped with a laser pistol to read barcodes on the cases to expedite things even faster. A handheld terminal is also used by the supervisor for inventory review and on-line error recognition. If one of the operators of the lift truck encounters any errors, the message is sent to the supervisor's terminal for assistance or resolution.
The terminals communicate by radio frequency (450Mhz - 470 Mhz) with a base station, which manages message traffic between the IBM mainframe computer and the terminals attached by radio frequency to it. The software that was developed internally by the company was nothing out of the ordinary and even some of the 'off the shelf' programs were modified to use the radio terminals. With the system, information that is read by the laser pistols or entered with the terminals updates the inventory data in about two seconds. A redundancy option assures reliable operation in case the main system has a fault. No down time has been seen since the system has been operational. If the host mainframe system goes off line, a data collection system lets transactions continue and then process the collected transactions when it comes back on-line.
The data terminals are very reliable and can take a lot of abuse. Once, when an operator tried to lift more than the fork lift could handle, the truck tipped over and fell on its side. Luckily, the operator escaped with no injuries and even the data terminal still worked perfectly even though it broke loose from its mount and the case was bent.
The terminals are very easy to operate. The keyboard has 18 function keys and separate letters and numbers for easy entry of of information. The 80 character message display is very visible under just about any lighting condition. The one I looked at was perfect and very readable. The range of the terminals is approximately one mile, which is more than enough for most applications. The system must be licensed through the FCC and output is 2 watts. Each terminal has a full 240 character receive and transmit buffer which may be examined at any time by using special keys on the terminal. Modulation is via a 2 frequency FSK (Bell 202 or CCITT V.23 compatible). Data rate is 1200 baud. Overall production in the warehouse has improved about 20-25% since the installation of the system. Even the management people seem to like it as it enables the entire process to be more productive, which results in increased profits. And after all, isn't that what business is all about?

The second topic for this month covers setting up a modem/software for data communications on the PC.

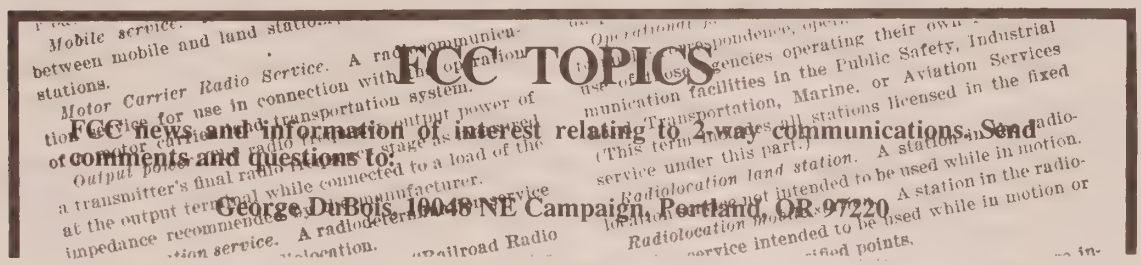
Getting Started with a Modem on the PC

When most people first are introduced to data communications, it is a little overwhelming at first. Since data communications is inherently complicated, many just give up on it out of frustration. What it all boils down to are a few basics.
The first thing you will need is obviously the port or place on the computer to hook the modem into. This is usually called a serial or asynchronous card and has the name of COM1 or COM2, depending. If you only have one port, it is obviously COM1. Some modems don't even need the port, as they are on a card that fits inside the computer. I personally don't like internal modems, as you can not look at the indicator lights to see what is happening while you are on line. Also, in order to get all the workings of a modem on a card, some features must be eliminated or chopped down to a bare minimum. The cost of an internal is cheaper than an external though.
If you have the external modem and the port, the next thing you will need is a cable to connect the port to the modem. This is either a 25 pin or a 9 pin depending on which type of port that you have. Once you have the cable, modem, and the port, you are about 95% of the way to getting on line.

Software... You need some type of software to let the computer communicate with the modem. There are various packages out, both commercial and shareware, that let you do just about anything. Pick the one that has the features that you want. Some things to look for is the number of available protocols or means of transferring files from one system to another. Some of the most used protocols are XMODEM, XMODEM CRC, Y-MODEM CRC, YMODEM-G, ZMODEM, and KERMIT. These are all protocols. Kind of like foreign languages. If I am talking french and you are talking spanish, then neither one of us is going to get very far. The next thing to do after you get your software, is to get it installed

for your machine. Refer to your users manual for complete instructions. Most modems are either 300, 1200, or 2400 baud. Configure your system for your type of modem and also configure for the system that you are calling. If you set up for 2400 baud and the system that you are calling can only run 1200, then you can see where the problems are going to happen. Find out about the system that you want to communicate with so you can set your end up accordingly. A good basic set up is to set your speed (300,1200, 2400,etc) and a 8 bit word length, 1 stop bit, and no parity. That should get you on line. I don't want to go into what all that means, as it would take up a lot of space. If you can't get connected at 8, N, 1, then try 7 bit word length, 1 stop bit, and odd parity. This is the setup used in about 99.9% of data communications setups. If you get connected and see garbage when you try and type something, try changing the setup to the opposite of what you are using. Another problem encountered by beginners is duplex. Duplex is nothing more than a way of echoing characters that you type back to your screen. Most systems will provide the echo and thus you need to setup for half duplex. If you and a friend are connecting to each other for a file transfer,etc you will need to set duplex to half. This way you will be able to see what you type as well as that what the other computer types. Since most non-host pc's don't provide the echo, half duplex will echo what you type to the other system as well as your screen.

Those are some of the basics for getting on line with a modem. Once you start playing around with it, you will wonder how you got along without it. I guess it's like anything that you first start learning, as you use it more, it gets easier.


FCC TOPICS
FCC news and information of interest relating to 2-way communications. Send comments and questions to:
George DuBois, 10048 NE Campaign, Portland, OR 97220

THE FCC HAS GRANTED A WAIVER OF ITS RULES TO ALLOW SAN BERNADINO COUNTY, CALIFORNIA TO CONSTRUCT AN INTEGRATED, COUNTY-WIDE PUBLIC SAFETY RADIO SYSTEM AT 800 MHZ. THE COUNTY INTENDS TO BUILD A SYSTEM USING AS MANY AS 64 CHANNELS AND 23 TRANSMITTER SITES. SINCE THERE AREN'T ENOUGH VACANT CHANNELS AVAILABLE, THEY PROPOSE TO USE CHANNELS OFFSET BY 12.5 KHZ AND CHANNELS RESERVED FOR CONVENTIONAL USE IN A TRUNKED CONFIGURATION. OFFSET CHANNELS (HALFWAY BETWEEN REGULARLY ASSIGNABLE CHANNELS) ARE ALLOCATED ALONG THE SOUTHERN U.S. BORDER TO ALLEVIATE INTERFERENCE, BUT ARE ONLY USED WITHIN 68 MILES OF THE BORDER. TO FURTHER COMPLICATE MATTERS, SOME OF THE FREQUENCIES THE COUNTY WISHES TO USE ARE ADJACENT TO CHANNELS ALLOCATED TO OTHER SERVICES, MAKING COORDINATION POTENTIALLY MORE DIFFICULT. THE COMMISSION GRANTED THE WAIVER ON THE STRICT CONDITION THAT IMMEDIATE STEPS WILL BE TAKEN TO RESOLVE ANY INTERFERENCE TO USERS PRESENTLY LICENSED ON ADJACENT CHANNELS SHOULD IT OCCUR. FAILURE TO DO SO MAY RESULT IN AN IMMEDIATE SUSPENSION OF ANY PORTION OF THE WAIVER. THE COUNTY MUST COORDINATE ALL THE FREQUENCIES THEY INTEND TO USE WITH THE CATEGORY OF USER OF THE ADJACENT FREQUENCY (INDUSTRIAL, SMRS, LAND TRANSPORTATION, ETC.). AN SMRS LICENSEE HAD SUGGESTED THAT THE COUNTY USE THE 3 MHZ BANDS RESERVED EXCLUSIVELY FOR PUBLIC SAFETY USE AT 800 MHZ (SEE SEPT., 87 COLUMN). BUT THE COMMISSION AGREED THAT THE COUNTY'S NEEDS ARE IMMEDIATE, AND THE PUBLIC SAFETY CHANNELS WON'T BE AVAILABLE UNTIL A BAND PLAN IS IN PLACE, WHICH COULD BE WHO KNOWS HOW LONG.

THE COMMISSION HAS DENIED ALMOST A DOZEN PETITIONS FOR RECONSIDERATION OF ITS ALLOCATION OF SPECTRUM IN THE 800-900 MHZ BAND IN 1986. (SEE 2/87 COLUMN.) BRIEFLY, AN ADDITIONAL FIVE MHZ PAIRED (10 MHZ TOTAL) WAS ALLOCATED TO THE CELLULAR TELECOMMUNICATIONS SERVICE, 5 MHZ PAIRED FOR A NEW LAND MOBILE BAND AT 896-901/935-940 MHZ, 3 MHZ PAIRED FOR PUBLIC SAFETY USE (866-869/821-824 MHZ), 2 MHZ FOR A FUTURE GENERAL PURPOSE RADIO SERVICE AND 4 MHZ FOR POSSIBLE USE FOR A MOBILE SATELLITE SERVICE (IN ADDITION TO THE 27 MHZ ALLOCATED AT 1500 MHZ).

THE PETITIONS:

APCO REQUESTED AN ADDITIONAL 2 MHZ FOR PUBLIC SAFETY USE ADJACENT TO THE 869/824 MHZ BANDS JUST ALLOCATED, CLAIMING THAT THE 6 MHZ ISN'T ENOUGH. THIS WOULD MEAN TAKING THE 2 MHZ BACK FROM THE CELLULAR SERVICE. THE FCC DENIED THIS. NASA ASKED THAT THE 6 MHZ ALLOCATED FOR PUBLIC SAFETY BE TAKEN BACK, AND BE ALLOCATED FOR FUTURE MOBILE SATELLITE SERVICE USE. (NASA HAS BEEN PUSHING FOR MSS FOR YEARS.) THE FCC DENIED THIS, TOO. TWO COMPANIES ALSO PETITIONED FOR RECONSIDERATION OF THE DENIAL OF A FIRM ALLOCATION FOR MSS IN THE UHF BAND. (821-825/866-870 WAS PROPOSED IN 1984.) THEY PRESENTED NO NEW ARGUMENTS. THE FCC DENIED THESE. AIRFONE, WHICH OPERATES AN AIR-TO-GROUND MOBILE TELEPHONE SERVICE UNDER AN EXPERIMENTAL LICENSE, ASKED THAT THE 4 MHZ WHICH WAS SET ASIDE FOR POSSIBLE MSS USE (DEPENDING ON ACTION BY CANADA) BE ALLOCATED FOR A PERMANENT A/G MOBILE TELEPHONE SERVICE. THE FCC DENIED THIS TOO, BUT WILL RECONSIDER IT IN A FUTURE ACTION REGARDING THIS SPECTRUM (849-851/894-896 MHZ), SINCE IT APPEARS CANADA WILL GO FOR A MSS ALLOCATION EXCLUSIVELY AT 1.5 GHZ, TOO. AIRFONE, WAS GRANTED PERMISSION TO USE THE BAND TEMPORARILY, THOUGH, SINCE THEIR PRESENT ALLOCATION IS IN THE 900 MHZ LAND MOBILE BANDS. FINALLY, THE FCC DENIED A PETITION TO REALLOCATE THE 2 MHZ SET ASIDE FOR THE FUTURE GENERAL PURPOSE RADIO SERVICE (901 / 940 MHZ), FOR USE IN THE ADJACENT LAND MOBILE BANDS. THEY REALLY DIDN'T MAKE IT CLEAR WHAT THEY WANT TO DO WITH THESE TINY SLIVERS OF SPECTRUM, BUT IT'S KNOWN THEY HAVE SOME HIGH HOPES FOR MULTI-SERVICE SHARING OF THIS BAND, THE USERS POSSIBLY DETERMINED BY AUCTION (IF CONGRESS GRANTS THEM THIS AUTHORITY). IN OTHER WORDS, THIS 2 MHZ APPEARS TO BE A SORT OF TESTING GROUND.

THE COMMISSION HAS GRANTED A NUMBER OF WAIVERS FOR THE LOS ANGELES COUNTY SHERIFF DEPARTMENTS NEW $59 MILLION RADIO SYSTEM. T-BAND CHANNEL 16 (482 - 488 MHZ) WAS REALLOCATED FOR LAND MOBILE USE IN THE PUBLIC SAFETY SERVICES IN L.A. A COUPLE OF YEARS AGO. THIS WAS ON THE CONDITION THAT NO HARMFUL INTERFERENCE OCCUR TO TV CHANNEL 17 IN BAKERSFIELD. MINIMUM SEPARATION REQUIRED FOR T-BAND LICENSEES IS 90 MILES FROM ADJACENT CHANNEL TV STATIONS. FOUR OF LA COUNTY'S 14 REPEATERS WILL BE LESS THAN 60 MILES FROM KGET IN BAKERSFIELD. LA COUNTY ALSO WANTED A WAIVER OF THE RULE THAT REQUIRES T-BAND STATIONS TO BE LOCATED WITHIN 50 MILES OF THE CITY IN WHICH SUCH OPERATION IS PERMITTED. PLUS, THE COUNTY WANTED PERMISSION TO OPERATE MOBILE UNITS ABOARD AIRCRAFT, AND A COUPLE EXTRA YEARS TO PLACE THE SYSTEM IN OPERATION. THE COMMISSION GRANTED ALL THE WAIVERS, AGREEING WITH THE COUNTY THAT THE NATURAL TERRAIN AND THE STRATEGIC PLACEMENT OF REPEATERS (WITH REDUCED POWER IF NECESSARY) SHOULD PREVENT INTERFERENCE TO KGET. ALSO, DUE TO THE COMPLEXITY OF THE SYSTEM, THEY WERE GRANTED FOUR YEARS TO PLACE THEIR STATIONS ON THE AIR, INSTEAD OF THE NORMAL EIGHT MONTHS.

THE FCC HAS RELEASED A NOTICE OF PROPOSED RULEMAKING THAT WOULD AMEND PART 80 TO SPECIFY THE CLASSES OF DIGITAL SELECTIVE CALLING (DSC) EQUIPMENT THAT MAY BE INSTALLED AT MARINE STATIONS. DIGITAL SELECTIVE CALLING IS BASICALLY JUST WHAT THE NAME SAYS, AND IS AN IMPROVEMENT OVER THE OLD METHOD OF ESTABLISHING CONTACT WITH A SHIP RADIO OPERATOR, AND OF HAVING TO MAINTAIN WATCH, TO LISTEN FOR INCOMING CALLS. THE PRESENT RULES ALLOW DSC TO BE OPTIONALLY USED. THIS AMENDMENT WILL SPECIFY THE THREE CLASSES OF DSC WHICH WILL BE PERMITTED. CLASS A IS THE MOST SOPHISTICATED (AND COSTLY) AND IS FOR LARGE OCEAN-GOING VESSELS. CLASS B IS FOR SMALLER VESSELS, FOR EITHER HF OR VHF. AND CLASS C IS THE SIMPLEST, PROVIDING INCOMING ALERTING ONLY.

ANOTHER PART OF THIS PROPOSAL WOULD PERMIT THE USE OF DSC TO TRANSMIT BRIEF DIGITAL EMERGENCY MESSAGES FROM UNATTENDED STATIONS. THIS WOULD ALLOW SYSTEMS THAT MONITOR FOR FIRE, INTRUSION, SINKING, ETC., TO

TRANSMIT ALARM SIGNALS FROM UNOCCUPIED SHIPS. THESE SIGNALS WOULD BE TRANSMITTED ON CHANNEL 70 (156.525 MHz), THE CHANNEL RESERVED FOR DSC. THEIR DURATION WOULD BE SEVERELY LIMITED TO PREVENT INTERFERENCE TO OTHER STATIONS.

FEDERAL GOVERNMENT and MILITARY

Send all Federal Government and Military frequencies (including those of military aircraft), radio system details, and related questions to:

Dennis Biagioli, 607 W. Pleasant Ave, Villa Park, IL 60181

Sensitive frequencies will not be published. Coast Guard material must go to the VHF Marine Editor.

Hi! Here we are in March already, which means for some of us the worst of the Winter is behind us. If you've never been through a Chicago winter, you probably have no idea what that can mean to us. In that case, you'd probably get right to the new information provided by generous friends and members of RCMA. Don't you feel guilty that you haven't contributed lately, if at all? You say you'd contribute, but don't know what to do. Well, read on...

REQUEST FOR SPECIFIC READER INPUT

How about all you UHF military aircraft listeners pitching in to help us put together a good list of frequencies used in military operating areas (MOA's)? Send the name of the MOA, home base and callsigns of aircraft usually using the MOA, the kind of usual activity and the frequency. If you send them to me by June 1 we can have a list for publication here in the Fall.

For those of you who don't listen in on the 225 to 400 MHz band, why don't you do your thing on the local operations of the U.S. Postal Service. If you do that, we can also have another list from member input. Again, how about getting them to me by June 1. The address is at the head of the column.

If these two suggestions don't fit what you know something about, be patient. We'll try more specific requests again soon! Now, let's get on to this month's contributions.

CURTIS (TN-033) provides the configuration for Federal Aviation Administration (F.A.A.) Motorola MX-series HT's. Channel five (5) is a repeater located at Hulston Mountain, near Johnson City, TN.

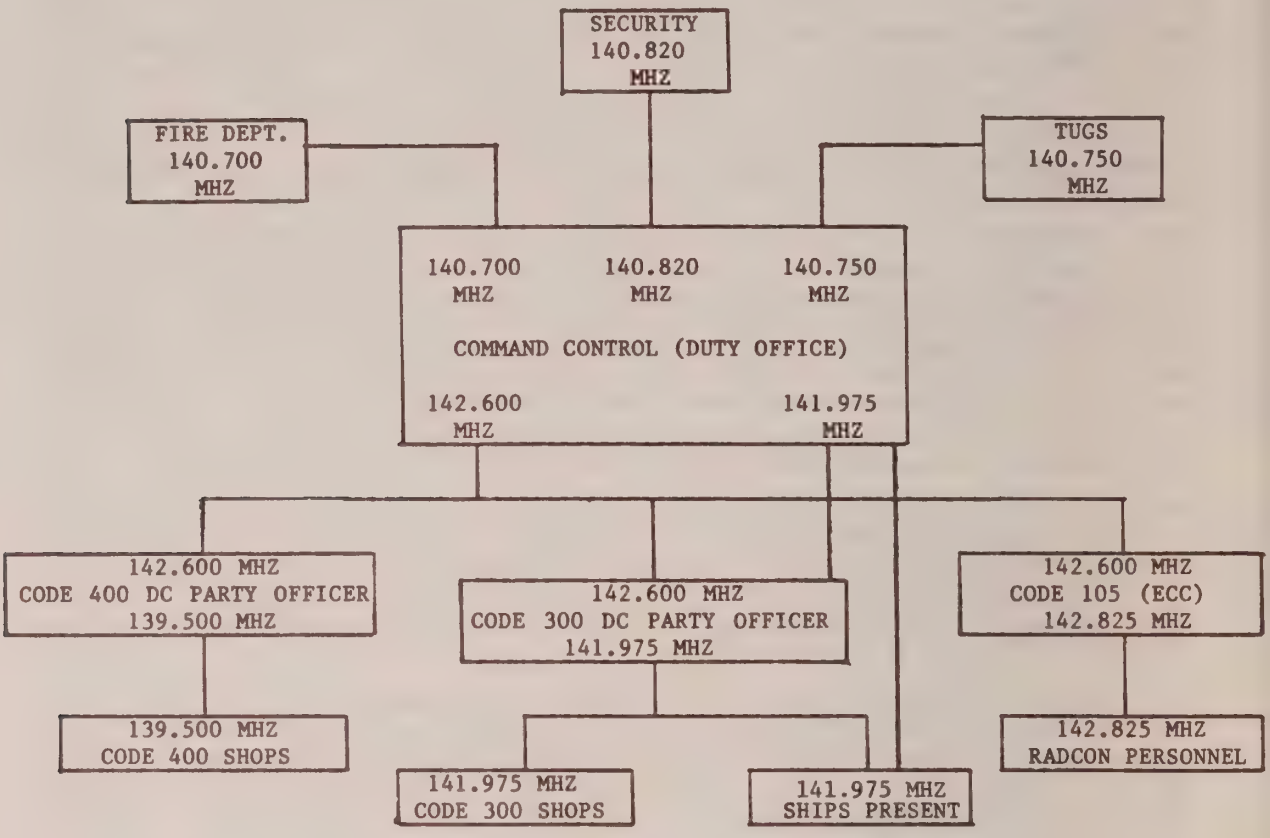
Chan.	Transmit	Receive
1)	169.325	172.925
2)	169.350	172.950
3)	169.375	172.975
4)	169.250	172.850
5)	169.275	172.875
6)	169.300	172.900
7)	169.225	172.825
8)	172.125	172.125
9)	172.175	172.175
10)	172.150	172.150
11)	166.175	166.175
12)	-- BLANK --	

DAVID (MD-104) sends a line drawing of the emergency communications set-up at the Norfolk Naval Shipyard in Portsmouth, Virginia.

30 MAR 1987

EMERGENCY COMMUNICATION PLAN

The following emergency communication plan is designed for use when the phone system is inoperable during hurricanes but may be activated in other emergency situations if needed.



1. When emergency communications are activated, frequency 142.600 (RadCon 1) will become the command circuit. This frequency will only be used and monitored by the Duty Office, Emergency Command Control (bldg. 62), code 400 Damage Control Party Officer, and code 300 Damage Control Party Officer.

2. RadCon 2 (142.825 frequency) will be used by code 105 personnel for radiological control needs.

3. Although the duty office can monitor 141.975, ships and Production shops are not authorized to use this frequency to communicate with the Duty Office except in the case of an extreme emergency.

DAVID also sent a list of identifiers to be heard on the police and fire frequencies at the Norfolk Naval Shipyard.

Norfolk Naval Shipyard Police (140.125 MHz)

D-1	Field Supervisors
D-1A	Field Supervisors
D-2,3,4,5	Motorized Patrols
D-14	St. Julian's Creek Motorized Patrols
D-17	Waterfort Motorized Patrol
D-70	Security Director
D-71	Chief of Police
D-72	Assistant Chief of Police
D-73	Assistant Security Director
D-100	Shipyard Commander

Norfolk Naval Shipyard Fire Department

F-1) 140.625 MHz F-2) 140.700 MHz

H-1	Fire Chief
H-2	Assistant Fire Chief
H-11	Engine Company #1
H-22	Engine Company #2
H-33	Engine Company #3 (located at Naval Hospital, Portsmouth)
H-41	Engine Company #4 (located at St. Julian's Creek Annex)
H-51	Aerial Ladder Truck

CARL (WI-054) and TODD (WI-093) send news of the radios used by the Environmental Protection Agency while engaged in a hazardous materials cleanup at an old factory in Beaver Dam, Wisconsin, in July of '87. The eight-channel portables were configured as follows:

Chan.	Tx.	Rx.
1	164.450	164.450
2	164.450	164.4125
3	156.800	156.800
4-8	157.075	157.075

GEORGE (CA-TO-001) sends in this report dealing with fire fighting in California:

I was on the big wild fires here in Tuolumne County near Groveland Calif. I am a Fire Lieutenant at Smith Station Fire Company (Tuolumne County Fire Department) and was out on the fire line for 2 weeks first on the Ever fire then on the Hamm fire, in our fire engine 631 and water tender 633 we only have a CDF radio and CB radio but we do not have any of the channels that the U.S. Forest Service is on, these fires here where all on the Forest Service so in order for us to talk to them we got one of there handi-talkies to use then gave it back when we all done but when we got the handie-talkie I made a note of the frequencies and this is a report on that.

U. S. Forest Service Stanislaus National Forest

Dispatch Office: Sonora Calif. (Tuolumne County) KME 24 F1-168.750
KME 24 F2-168.150

Handie-Talkie: Motorola MT-500 8-Channel

CH.	TX	RX		OTHER
1 -	168.050 /	168.050	(S) -	TAC 1 or CREW NET 1
2 -	168.200 /	168.200	(S) -	TAC 2 or CREW NET 2
3 -	168.600 /	168.600	(S) -	TAC 3 or CREW NET 3
4 -	168.100 /	168.100	(S) -	COMMAND 2 / F1
5 -	170.450 /	168.100	(R) -	COMMAND 2 / F2
6 -	168.075 /	168.075	(S) -	COMMAND 3 / F1
7 -	170.425 /	168.075	(R) -	COMMAND 3 / F2
8 -	170.000 /	170.000	(S) -	AIR to GROUND or GROUND to AIR

(S) - Simplex
(R) - Repeater

This is there older handie-talkie that they still use and the new handie talkies they have are made by KING and they have 14 channels and the frequencies you program into it from 148-174 MHz. and they all have the rechargeable ni-cad batteries and flex antenna and can clip onto your belt.

The mobile unit's in there trucks, some have and old old 12 channel GE radio and the rest like the fire trucks have a newer radio where they can go to almost any high band channel, each distric office base station radio has just 2 channels like you see above (168.750 & 168.150) and they each have different call sign's, the call sign of KME 24 is the dispatch office in Sonora also the dispatch office has many of the forest service channels that is used, more than the distric office's.

On the above frequency list of the handie-talkie, the Ch.2 (168.200), Ch.6 (168.075), Ch.8 (170.000) and the dispatch channel #1 (168.750) was the most active of all the frequencies on this list in this report.

Now some people are thinking "How did I get this frequency information when I am on the fire line ?" well that's where my Regency HX-1200 comes in, I took it with me and every time I heard a frequency put out I would make a note of it then program it into the HX-1200 and listen, that way I had a head start on what the fire was doing and if someone on a different channel from what I was on would be calling for me and it worked out just

great but some timetimes the battery would run down before I can charge it up but it still worked out great and did it's job it was made to do.
This Regency HX-1200 hand held scanner I have is better then I first though it would be and I would not trade it for any other made at this time, it's the best hand held scanner I know of that's made today.
I was able to hear the Forest Service on these channels and the OES, the CDF and the fire aircraft all that was on the fires in my area or the same area that I was in on the fires, in the fire engine 631 and the water tender 633 we where on the Tuolumne/Calaveras CDF local car to car channel (151.175 - simplex), the local net is on a repeater and the car to car is simplex, same frequency but for car to car we turn off the repeater by just bushing a button on our radio in the fire equipment or we can change from one repeater to a different repeater by just pushing a button.

As always, our deepest thanks to those whose contributions made this month's column possible. Until next time...

73-

Denny

MONITORING & THE LAW

Send information or questions to:
Roger W. West (MN-052), P.O. Box 52, Balsam Lake, WI 54810

Hello members! If this is your first issue of the newsletter - WELCOME!

NEW RULES FOR MICROWAVE RADIO

The Federal Communications Commission recently has revised the rules for all common carrier fixed radio services including microwave radio. Significant changes go into effect November 9, 1987. These changes are especially important to cellular carriers and telephone companies because both make extensive use of microwave radio.

The FCC released a 32-page REPORT AND ORDER that explains the changes being made to Part 21 of the FCC's rules covering the common carrier fixed radio services. The R&O followed an April, 1986 Notice of Proposed Rule Making concerning new rules for Part 21.

Although all of the common carrier fixed radio services are affected by the recent R&O, this article addresses only the most important changes made in the regulation of the point-to-point microwave radio service. These changes take two forms. In some cases, existing rule sections have been revised or simply deleted, in other instances, new rule sections have been added.

MINOR MODIFICATIONS DEFINED - The FCC defines "minor" changes to microwave facilities as being those that do no result in a "substantial modification" to the engineering. Specific examples of substantial modifications are given in existing Rule Section 21.23. These rules are not changed by the recent R&O. However, the FCC has added a new Section 21.41(c) that defines minor modifications.

Prior coordination rules have been tightened. Coordination will be required even for some "minor" modifications. See new Section 21.41(b)(6) for this requirement and see revised Section 21.100(d) for coordination procedures.

Coordination, once completed in accordance with revised Section 21.100(d), will be valid for six months only. Revised Section 21.100(d)(2)(x) will require the circulation of renewal coordination notifications if an application has not been filed within six months after the initiation (versus completion) of coordination.

If, as a result of coordination efforts, unresolved technical problems remain, an applicant still must provide the FCC with an explanation concerning these unresolved problems. Additionally, Section 21.100(d) continues to require notification, even after successful coordination, concerning changes considered to have no impact on other carriers.

Construction permits will be eliminated. Instead, in accordance with new Section 21.43(a), a license will be issued as the result of an application grant. This license will remain valid so long as the applicant constructs the microwave facilities within 18 months and properly notifies the FCC.

As stated in new Section 21.43(b), after the completion of construction, applicants still are required to submit a certificate of the completion of construction. Under the revised rules, applicants will use a new FCC Form 494A for this notification.

However, the existing Section 21.212 requiring the notification of the FCC Radio District Engineer in Charge has been removed. Therefore, this step will not be required for service testing.

A demonstration of an applicant's financial qualifications will no longer be required. However, revised Section 21.17 will require applications to attest to their financial qualifications.

Often applications that involve new antenna structures or increased hieghts for existing structures require Federal Aviation Administration notifications. Following a study and provided no problems to aviation safety are uncovered, the FAA will issue a no-hazard determination.

Under the revised Part 21 Rules, applicants no longer will be required to submit copies of FAA notifications or determinations. Notwithstanding, if an FAA determination is available, it should be included as an application exhibit as it will serve to expedite the process of granting the requested license.

Revised Section 21.15(d) will continue to require an applicant to indicate in the application whether an FAA notification, using FAA Form 7460-1, has been made.

Existing Section 21.15 (h) has been removed. As a result, applicants no longer will be required to submit copies of topographic maps showing site locations as application exhibits.

Under the revised Part 21 Rules, FCC form 494 will be used for microwave applications. A copy of the form has been attached to the September, 1987 FCC R&O as a part of Appendix A. This form should not be used until a Public Notice has been issued by the FCC indicating that the new form has been approved and that copies of it are available for use. In the meantime, applicants should continue to use FCC Form 435, dated June, 1987.

The new form for notification of completion of construction, FCC form 494A, has been enclosed as Appendix B to the FCC R&O. It too should not be used until the FCC public notice has been issued concerning the approval and availability of this new form. In the meantime, permittees should continue to use existing FCC Form 436.

Applicants will continue to be required to demonstrate site availability. Applicants for microwave radio facilities at new locations must indicate whether the proposed site is self-owned. If the site is not owned by the applicant, the availability must be demonstrated. If the site either is under lease or under written option to buy or lease, ordinarily the FCC considers the site availability requirement to be satisfied if the applicant simply attests to these arrangements in the applications. This can be accomplished by the applicant by checking the appropriate block in response to Item 11.

The revised rules of Section 21.15(a) will require applicants to submit special exhibits concerning site availability where a lease or agreement for land use would limit, or condition in any way, the applicant's access or use of the site to provide public service. In these instances, a copy of the lease or agreement clearly indicating the limitations or conditions will have to accompany the application.

Under the revised rules, in those instances wherein licensees are selected by the random selection process, i.e. lottery, between mutually exclusive applications, applicants will be permitted to submit applications based only on reasonable assurances of site availability. However, the license will not be awarded to the selected applicant until that applicant provides concrete evidence of site availability. Paragraph 15 of the 1986 notice of proposed rulemaking and paragraph 57 of the 1987 R&O provide more details concerning this rule change.

TIGHTENED RULES ON EXTENSIONS FOR CONSTRUCTION - In addition to the revised rules concerning site availability, there is a new Section 21.40(b) stating that the FCC will not grant an extension of time for construction as the result of delays due to the lack of site availability. Furthermore, the new rule section provides that the FCC will not grant extensions due to delays caused by lack of financing.

Revised Section 21.43 allows a maximum construction period for stations in the point to point microwave radio service of 18 months from the date the license is granted. This same 18 month construction period also applies to the Part 21 Digital Electronic Message Service, while all other Part 21 common carrier fixed services have 12 months for construction. The 18-month period for the point-to-point microwave radio service represents no change from the existing rules.

Finally, should an unconstructed license be transferred or assigned, the FCC will consider requests for an extension of time to allow for the completion of construction. However, a new Section 21.40(c) states that the maximum time for such an extension will be equal to the time remaining for construction at the date of the filing of the transfer application.

TIGHTENING ON STA GRANTS - Although the FCC has not made any changes to its rules concerning special temporary authorizations (STAs), it has indicated that in the future it intends to be even more strict in granting STAs. In the September, 1987 R&O, the FCC stated.

Therefore, we intend, as stated in the Notice, to scrutinize more carefully all STA requests. We shall not grant them, unless they satisfy all the requirements of Section 21.25. In addition to the substantive test of filing at least 10 days prior

to the date of proposed construction or operation and of certifying the completion of prior coordination procedures, as necessary.

In accordance with new Sections 21.41(a) and 21.41(b)(1), under specified conditions, minor modifications to point-to-point microwave radio facilities are granted automatically as of the twenty-first day following the date of public notice for the minor modification application. These conditions include the following:

* Per new Section 21.41(b)(3), the facilities to be modified must be located more than 35 miles from the Canadian or Mexican border.

* The application must be acceptable for filing, consistent with all FCC rules, not involve a waiver request, specifically request special consideration in accordance with Section 21.41, demonstrate completed coordination procedures in accordance with Section 21.100, and comply with the technical limitations set forth in Section 21.41(c). The technical limitations of new Section 21.41(c) concerning automatic grant of minor modifications to facilities in the point-to-point microwave radio service are as follows:

* New Section 21.41(c)(1)(i) limits transmitter changes such that the transmitter power output may be decreased or increased by less than 3dB. Remember changes still require coordination or notification (see above, New Section 21.41 (b)(6)) and revised Section 21.100(d). For Digital Electronic Message Service and Multipoint Distribution Service the transmitter power output increase will be limited to only 1.5dB or less.

* In accordance with new Section 21.41(c)(1)(ii), transmitter changes must not increase the bandwidth by more than 10 percent.

* New Section 21.41(c)(2) covers changes to antenna heights. Antenna height changes must decrease the antenna height or limit the height increase to less than 20 feet except for DEMS and MDS where height increases must be less than 10 feet. In addition, as a result of the antenna height changes, the overall height of the antenna structure must not increase unless the entire structure extends 20 feet or less above the ground or above an existing manmade structure.

* Changes in geographical coordinates are limited by new Section 21.41(c)(3). These changes must be no more than 10 seconds in latitude or longitude or both. In addition, if appropriate, the application must indicate that necessary notifications to the FAA have been made.

MODIFICATIONS NOT REQUIRING FCC AUTHORIZATION - New Section 21.42 will permit certain modifications to be made to point-to-point microwave radio facilities without prior authorization by the FCC.

New Section 21.42(a) allows equipment to be replaced by identical equipment, i.e., same manufacturer and model number. If coordination/notification has been completed in accordance with revised Section 21.100, if an FCC Form 494 setting forth the modifications is filed with the FCC within 30 days, and if the cumulative effect of all changes made within any 60-day period does not exceed technical limitations contained in new Section 21.42(c), new Section 21.42(b) permits microwave modifications without prior authorization by the FCC.

The limitations of new Section 21.42(c) for modifications without prior authorization are as follows:

* Replacement or modified transmitters must by type-accepted, the type of modulation must not change, the frequency stability must be the same or better, and neither the bandwidth or power output can be increased.

* Protection, e.g., but standby, transmitters may be added or deleted.

* Replacement antenna must conform to Section 21.108 and must provide essentially the same or better radiation characteristics.

* Technical changes that result in a decrease in the effective radiated power (ERP) are allowed.

* Permitted antenna changes are those that result in: (a) a new center-of-radiation height that is within +5 feet of the previously authorized height, (b) no overall increase in antenna structure height is 20 feet or less above the ground or above an existing manmade structure, (c) decrease in antenna heights, provided that the FAA is notified as appropriate, and (d) antenna pointing azimuth changes of one degree or less.

* Transmission line changes in other devices between the transmitter and the sntenna must result in an unchanged or decreased ERP, or an increase in ERP of no more than 1dB.

In addition, new Section 21.42(d) will permit the correction of erroneous information on a license-so long as the modification is not classified by existing Section 21.23 as major-by the filing of a completed FCC Form 494..

TIGHTENED RULES ON UNUSED RADIO FREQUENCIES - After construction, licensees that at any time fail to use licensed radio frequencies for a consecutive period of 12 months must submit the appropriate licenses to the FCC for cancellation. Alternatively, these licensees may file an application to modify the affected licenses to delete the unused frequencies or the licensees may request a waiver to new Section 21.303(d). Exceptions to new Section 21.303(d) are provided for in revised Section 21.303(a) through (c).

RCMA STAFF EDITOR APPLICATION FORM

On the reverse side of this page you will find a centerfold application form for the position of RCMA Staff Editor. You may remove this centerfold and complete the application without causing damage to your NEWSLETTER magazine.

RCMA Staff Editors write the monthly columns you read in the NEWSLETTER. You are encouraged to make application for any and all positions that interest you. If the position is filled, you will be considered when there is an opening. You must answer all questions and initial that you understand the duties of a Staff Editor.

RCMA Staff Editors must write a column every month on their assigned subject. If an editor misses two months unexcused in the performance of his duties, he will be replaced. In return for your volunteer work, your paid RCMA membership will be placed on hold for the duration of your service. You will receive free membership while working as a Staff Editor, and your NEWLETTER magazines will be mailed to you by First Class Mail. Your paid membership will resume when you resign.

You are required to have a typewriter or computer printer of good quality, and you must attach a sample of your print with your application. Details on RCMA column construction are available in the November 1987 NEWSLETTER. You may also receive a copy by sending a stamped, self-addressed business envelope to the RCMA Managing Editor, as is noted in the front of this edition.

Please do not make application for any position unless you are serious about working on the staff. We are not interested in information collectors or others who do not have the best interest of the membership at heart. Note any comments which might cause your application to receive extra consideration.

We encourage everyone who is interested and qualified for any Staff Editor position to complete the application and get on file for future consideration. You must be qualified under the guidelines mentioned above, be a current RCMA member, and complete the form to receive consideration for any Staff position.

Mail Completed Forms To:

Capt. William Mauldin
RCMA Managing Editor
961 Azalea Street
Boca Raton, FL 33486

RCMA STAFF EDITOR APPLICATION

Revised October 1987

To be considered for a position on the RCMA Staff, you must complete this application and return it along with a stamped, self-addressed envelope to the RCMA Managing Editor. You will be notified when the position opens for appointment.

Being an RCMA Staff Editor requires that you write a monthly column on your assigned subject. Details of your duties will be furnished if you are selected for appointment to the volunteer staff. Your monthly participation is mandatory, and although we do understand emergency needs, you will be expected to plan ahead and construct your required column monthly, without exception. Appointment of RCMA Staff Editors is at the discretion of the RCMA Managing Editor and RCMA Business Manager.

In return for your participation, your paid RCMA membership will be placed in hold status for the period of your volunteer service. Your membership will be free during your tour. At the end of your service, your paid membership will resume for the balance due. Also, your Newsletter will be mailed to you via first class mail.

PLEASE COMPLETE AND RETURN THIS FORM...

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____ HOME PHONE _____

WORK PHONE _____ OCCUPATION _____

MAILING ADDRESS IF DIFFERENT _____

RCMA MEMBERSHIP NUMBER _____ To write the column, if selected, I will use the following: ( ) Typewriter ( ) Computer Printer (You must have one!)

LIST THE STAFF EDITOR POSITIONS THAT INTEREST YOU: (in order of choice)

1. _____ 3. _____

2. _____ 4. _____

Note any special qualifications or comments that might help in your appointment:

IMPORTANT! Please ATTACH a sample of print from the computer printer or typewriter that you will be using to write your monthly column, if selected.

PLEASE INITIAL THAT YOU UNDERSTAND THE DUTIES OF A STAFF EDITOR: _____.

RCMA ASSOCIATE EDITOR APPLICATION FORM

On the reverse side of this centerfold page you will find the application form for RCMA Associate Editor. You may remove this centerfold and complete the application without causing damage to your NEWSLETTER magazine.

RCMA Associate Editors are assigned to each state, except California and Hawaii. The primary duty of the Associate Editor is to collect information about his state and forward it no later than the 22nd of each month to the Staff Editor who writes the column covering the subject.

As an Associate Editor you will represent your state by making certain some information is submitted monthly to the Staff Editors. You are encouraged to answer questions and encourage monitoring and reporting by members in your area. Members are welcome to send material directly to the Staff Editors, however, they will be encouraged to submit the information contributions through you.

Since the RCMA Associate Editor program is new, the Board has not approved free or reduced memberships for Associate Editors at this time. For the present, as an Associate Editor for your state, your name and address will be listed in the Associate Editor Directory in each NEWSLETTER. You will get to see the information contributions before they are passed along monthly to the Staff Editors for printing. You will represent RCMA in your state. There is considerable personal satisfaction for being as part of the RCMA reporting team.

To be considered for Associate Editor for your state, you must complete the application on the reverse side of this page. You DO NOT need to have a typewriter or printer, as you will forward information as it is received by you. The Staff Editor must retype it when writing his monthly column. Your monthly participation is mandatory, and you must remain active or you will be replaced. ALL information that comes to you must be forwarded by the 22nd of each month, without exception. You must initial the application for indicating that you understand your duties, if selected, and that you are willing to work to see your state is represented.

Associate Editors do not represent just public safety within RCMA. They are the Associate Editor for all subjects covered in the NEWSLETTER.

We encourage everyone who is interested and qualified for Associate Editor to complete the application form. If your state has been assigned, we will consider your interest and qualifications when the position becomes open. You must be a current RCMA member to be considered. Add any comments you like which might allow you to receive primary consideration for the position in your state.

Mail Completed Forms To:

Capt. William Mauldin
RCMA Managing Editor
961 Azalea Street
Boca Raton, FL 33486

We are NOT interested in information collectors. We need ACTIVE state representatives working for the improvement of RCMA. Don't apply unless you are willing to work at representing RCMA in your state, actively reporting and covering your area.

RADIO COMMUNICATIONS MONITORING ASSOCIATION, INC.

ASSOCIATE EDITOR APPLICATION FORM AND RECORD

Revised September 1987

You must complete this form to be considered for an RCMA Associate Editor position. The information will be kept confidential, and the form will be retained only for the period you have noted below or for the term of your appointment.

The position of Associate Editor is a volunteer position. Your duties will be to collect, verify and report information to the RCMA Staff Column Editors and/or to the RCMA General Editor. At this time, the RCMA Board of Directors has not made any provision for free membership during the tour of volunteer service for Associate Editors. The value of this volunteer service will have to be evaluated before a decision is made in this respect. In return for your service, your name and address will be listed in the Associate Editor Directory in the NEWSLETTER each month. You will in theory be the RCMA representative for your state. You can expect to receive information and questions from other members. You will also receive primary consideration for any Staff Column Editor position which becomes open. At that time, you will be given full consideration based on your qualifications.

If selected as an RCMA Associate Editor for your state, you must agree to forward ALL information received to the respective Staff Column Editor NO LATER than the 22nd of EACH and EVERY MONTH, WITHOUT EXCEPTION. You must have some written contact with the Public Safety Editor for your state by the 22nd of each month, whether you have material to send OR not. If you fail to have this written contact for TWO consecutive months, you WILL be replaced and another member will be appointed to your position. This contact is necessary to make certain all 50 Associate Editors are active and participating as required in our monthly information collection effort. You may send the material to the appropriate Staff Column Editor in any form, as the Column Editor must retype the information to the required format for printing.

WHAT STATE WOULD YOU LIKE TO REPRESENT? _____

Initial here that you have read and understand the above information _____ Date of Application: _____

Name: _____

Street: _____ RCMA Membership No.

City: _____ _____

State: _____ Zip: _____ Telephone: _____

Would you want your name and address published as shown above? (Yes) (No)

If there is a different Mailing Address, note it here:

Are you interested in becoming a Staff Column Editor? (Yes) (No)
If so, what subjects and columns interest you?

RCMA AEAPPLI.COL

FInally as a result of the recent R&O, the FCC has removed a number of record-keeping and other ministerial/administrative obligations of the license such as:

* Section 21.204 requiring the licensee to maintaim a copy of the rules has been eliminated.
* Section 21.206 concerning maintenance of structure conforming with Rule Part 17(FAA requirements) has been eliminated.
* Section 21.207 requiring transmitter measurements and records has been eliminated.
* Section 21.213 requiring station identification has been eliminated.
* Section 21.300 requiring the retention of business records has been eliminated.
* Additionally Section 21.201 (a) has been changed to allow licensees to post either the station license or authorization at the station, or to simply post the name, address and telephone number of the custodian of the station license or authorization.

Fifteen major areas in the FCC's microwave rules have been changed significantly as a result of the September, 1987 R&O. About half of these serve to reduce the workload imposed in microwave applicants and licensees, while the regulation actually tighten the FCC's regulation of the microwave frequencies. Tightened procedures will pay dividends to all existing and future microwave users in contributing to better frequency coordination and more efficient use of the limited microwave radio spectrum.

The above article was from the Mobile Communications Business Magazine.

Some more answers to my monitoring questions.

MICHIGAN: B. Permit for Mobile Unit required. (Gary S. IN-045)

INDIANA: B. permit for Mobile Unit required. (Gary S. IN-045)

That will do it for this month. Next month I will continue with more articles on FCC RULES. I will close with this thought:

"Imagination is more important than knowledge".

EDITOR'S NOTE: I am not a lawyer, so please do not take my opinion as a legal statement.

Good Listening,

Roger

RCMA Handicapped Representative

Send questions or newspaper and magazine articles of interest that relate to the hobby of monitoring and will be of aid to our handicapped members.

Send to : Roger West, P.O. Box 52, Balsam Lake, WI 54810

HANDICAPPED INFO

Several months ago I told you about a non-profit organization called COURAGE CENTER that has a program (Handi-Ham) to aid the handicapped person to get his/her amateur radio license.

I received a letter informing me that they will be building a unit in Stillwater, Minnesota which will go by the name of COURAGE ST. CROIX. This will be a large aid to the people that travel from the East to come to the COURAGE CENTER.

Is there a subject that you would like to see covered in this column? Drop me a note, as this column is only as good as you the membership make it.

Good Listening,

Roger

NEWS MEDIA COMMUNICATIONS

This column is for reporting frequency and radio systems information of news media. Send related reports and questions on newspaper, radio, television, magazine, film production companies, etc. to:

Allen G. Henney, MD-069, 6912 Prince Georges Ave, Takoma Park, MD 20912

THIS MONTH WE HAVE SOME UPDATES FROM VARIOUS LOCATIONS. THE FIRST IS FROM GEORGE WIGHT (CA-TO-ØØ1). GEORGE, AS YOU MIGHT REMEMBER FROM HIS PREVIOUS CONTRIBUTIONS, LIVES UP ON A HIGH ALTITUDE IN GROVELAND, CALIFORNIA. NEEDLESS TO SAY GEORGE GETS SUPER RECEPTION. DURING THE WILD FIRE SEASON IN THE STANISLAUS NATIONAL FOREST IN TUOLUMNE COUNTY, CALIFORNIA, GEORGE NOTED THE NEWS MEDIA AT DIFFERENT LOCATIONS DOING REPORTS. THE BELOW IS WHAT GEORGE NOTED AT THE WILD FIRES.

KCRA (TV3) 45Ø.55Ø (FROM SACRAMENTO)
KXTV (TV1Ø) 45Ø.65Ø (FROM SACRAMENTO)
KOVR (TV13) 45Ø.45Ø (FROM SACRAMENTO)

GEORGE SAYS THAT HE NOTED MANY OTHER MEDIA CREWS COVERING THE WILD FIRES. HE NEEDS HELP FINDING THE FREQUENCIES FOR THE FOLLOWING NEWS CREWS WHO WERE AT THE WILD FIRES: KPIX (TV5) SAN FRANSICO, KTXL (TV4Ø) SACRAMENTO, CABLE NEWS NETWORK & THE STOCKTON RECORD. IF ANYONE KNOWS OF ANY FREQUENCIES OR OTHER NEWS MEDIA THAT WAS REPORTING ON THE FIRES IN TUOLUMNE COUNTY, PLEASE LET US KNOW SO WE CAN PASS THE INFORMATION ONTO GEORGE FOR HIS LIST. GEORGE NOTES THAT HE HAS SENT OTHER WILD FIRE RELATED FREQUENCIES ONTO THE PS-CA, AIRCRAFT & AMATEUR RADIO COLUMNS. THANKS GEORGE!

THE NEXT LETTER COMES FROM A MOTOROLA ELECTRONIC TECHNICIAN CURTIS L. HARBIN (TN-Ø33) (CURTIS IS AN ASSOCIATE EDITOR FOR THE PSSC COLUMN). THIS IS THE FIRST CONTRIBUTION THAT WE HAVE RECEIVED FOR THE STATE ON TENNESSEE. I AM SURE THE FREQUENCIES WILL BE OF INTEREST TO AREA MEMBERS. NOTICE THE VERY INTERESTING VARIETY OF FREQUENCIES USED BY THE MEDIA IN THE JOHNSON CITY AREA.

BRISTOL, GREENVILLE, JOHNSON CITY, KINGSPORT, TENNESSEE AREAS
JOHNSON CITY PRESS CRONICLE NEWSPAPER 173.275
KINGSPORT PRESS 153.155
TRI-CITIES B/C (WJCW/WQUT) 463.85, 161.67 (REMOTES), 455.85 (REMOTES)
WCYB (TV5) 151.745
WGRV (AM134Ø) 161.64
WJCW (AM91Ø) SEE TRI-CITIES B/C ABOVE
WJHL (TV11) 463.95
WKPT (TV19) 152.87 & 153.35
WQUT (FM1Ø1.5) SEE TRI-CITIES B/C ABOVE
WUSJ (US99) 161.67, 45Ø.99 (REMOTES) & 455.Ø5 (SEE WZAP)
WXBQ (FM96.9) 45Ø.Ø1 (REMOTES), 45Ø.45 (STUDIO TRANSMITTER LINK)
WZAP (AM69Ø) 455.15 (STUDIO TRANSMITTER LINK) & 455.Ø5 (SEE WUSJ)

THANKS CURTIS! THE LAST LETTER IS AN UPDATE FROM MARK CHINSKY. IN THE LAST NEWSLETTER MARK ASKED FOR THE FREQUENCIES USED BY THE NEW YORK DAILY NEWS REPORTERS & OTHER NEW YORK CITY NEWSPAPERS. MARK TELLS US THAT HE HAS FOUND THAT 477.8875 (KVB313) IS PRESENTLY BEING USED BY THE NEW YORK DAILY NEWS (PAPER SERVICE). HE IS CHECKING 477.8875 TO SEE IF THE REPORTERS (WHO DO USE AN UHF FREQUENCY) USE IT ALSO. IF YOU COULD HELP US FIGURE OUT ANY OF THE NEW YORK CITY PRESS FREQUENCIES, PLEASE WRITE.

GOOD NEWS & GOOD SCANNERING...

PUBLIC SAFETY

This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for poilice, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.

Associated Public-Safety Communications Officers, Inc.

OFFICIAL TEN SIGNAL LIST

APCO states the numbering, sequence, words or word phrasing of the below listed signals may no be altered, nor may the reserved signals be otherwise implemented except by APCO. Any user may employ signal numbers upward, beginning with 10-40, as needed for local dispatching. RCMA publishes this listing in support of APCO and their uniform dispatch code efforts. We will print other dispatch codes, different from the OFFICIAL APCO listing, only to assist our membership in their continued monitoring hobby. It is hoped you find this listing useful.

10-1	Signal weak	10-19	(In) contact
10-2	Signal good	10-20	Location
10-3	Stop transmitting	10-21	Call ( ) by phone
10-4	Affirmative (OK)	10-22	Disregard
10-5	Relay (to)	10-23	Arrived at scene
10-6	Busy	10-24	Assignment completed
10-7	Out of service	10-25	Report to (Meet)
10-8	In service	10-26	Estimated time of arrival
10-9	Say again	10-27	License/Permit Information
10-10	Negative	10-28	Ownership Information
10-11	( ) on duty	10-29	Records check
10-12	Stand by (stop)	10-30	Danger/Caution
10-13	Existing conditions	10-31	Pick up
10-14	Message/Information	10-32	( ) units needed (Specify)
10-15	Message delivered	10-33	Help me quick
10-16	Reply to message	10-34	Time
10-17	Enroute	10-35 through 10-39 are reserved for future assignment by APCO. User option 10-40 upward.	
10-18	Urgent		

PUBLIC SAFETY—GREAT LAKES

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows—Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

David Wilcox, 1711 Excalibur Drive, Janesville, WI 53545

Welcome to the March 1988 column of --Public Safety-Great Lakes--.

From John (IL-012) we have another great update on material printed in the column, his letter is as follows.

I read with interest the list of frequencies contributed by Dave (IL-354) in the Nov. newsletter. Some of the "State Police" and "State Priority" frequencies are in error and I would like to have the record set straight.

State Police

Dist. 1 - Sterling: 42.52 base/42.72 mobiles (154.905 is not used by the troopers as such)
Dist. 2 - Elgin: 42.62 base/42.68 mobiles
Dist. 3 - Chicago: Add 42.88 Expressways. Correct high band freq. is 154.935. (On weekends and holidays when the DCI Zone 3 office is closed, DCI radio traffic on 154.905 goes thru ISP Dist. 3)
Dist. 4 - Crestwood: 42.34(not 42.43); add 42.66-Expressways
Dist. 5 - Joliet: 42.60 base/42.70 mobiles
Dist.16 - Pecatonica: 42.44 base/42.70 mobiles; Correct high band freq.. is 155.520
Dist.17 - La Salle: 154.680 not used.
Dist.15 - Oakbrook (Tollways): 855.9625 used around Elmhurst (on north leg of Tri State Tollway) at present; 855.7375 and 855.4875 used on E-W Tollway and on South leg of Tri State Tollway; 854.9875 and

855.2375 used on north leg of Tri State Tollway and on N-W Tollway. An additional Freq. of 155.925 is available for short range car-car use (mobiles only-no base).

State Priority

High Freq. F2 varies among state police dists. (Examples: 154.695-Dist.2, 154.920-Dist.5) Some dists. (Examples: Sterling and La Salle) do not have an High Freq F2, so they have to fall back on 155.460 for high band use.

High Freq. F4 (155.460) is still called "Channel 7" by some of the older service personnel.

Point to Point (155.370) is also known as High Freq. F5 (marked as such on many ISP base consoles).

E99 North (Chicago Governor's Mansion) and E99 South (Springfield Governor's Mansion) use 154.935 for liaison with ISP Dist. 3 and 9 Respectively. Main operating freq. is 154.710.

156.000 is not used regularly by the DCI as such. The Primary use is MEG (Metropolitan Enforcement Groups) drug activity in nature. In some areas of the state try for MEG traffic on 154.710 instead of 156.000. (In several areas of the state, executive security and local enforcement traffic is found on 154.710. MEG traffic is then shifted to 156.000.)

By the time this contribution comes to print, conservation fire control activity (mainly in the southern half of the state) on 31.98 will be pretty much non-existent as the old 31MHz conservation radio system should be just about phased out. **John (IL-012)**

Thanks John, now from **Bob (IL-267)** we have a report on the

Woodridge Illinois Police Radio System

Installed in 1987, the new Woodridge Police radio system uses two Motorola 800 MHZ, 70 watt repeaters. There are 4 remote receivers located at strategic points within the town, connected to the police headquarters by leased telephone lines. All officers are issued MX340 walkie-talkies, which run 1 watt.

The 800 MHZ system supports ANI (Automatic number identification) on the primary channel. At the beginning of each transmission, the walkie-talkie sends the officer's unit number encoded in a digital burst. To the listener, this burst sounds like a "turkey Caller". The number is displayed at the dispatch console at police headquarters. Radios are also equipped with a "panic button," which an officer can use to summon assistance.

The MX340 walkie-talkies are used both as in-car and portables radios. Squad cars are still equipped with the older 8 channel scanning Motorola Syntor radios to cover VHF frequencies like ISPERN and 154.725 Mhz.

Woodridge PD owns a Varda alarm, a portable burglar alarm connected to a tape recorder and transmitter. The alarm transmits a prerecorded message on 154.725 when activated, and can be set up in a location where a burglary is expected.

Woodridge Police Frequencies

856.4625	WNCD989	F1 - police dispatch repeater, output
811.4625	WNCD989	police tactical repeater, input
857.4625	WNCD989	F2 - police tactical repeater, output
812.4625	WNCD989	police tactical repeater, input
154.725	KNIC529	old police VHF dispatch
155.010	KNIC529	police tactical #2
155.370	KNIC529	police point to point
155.475	KN3600	ISPERN
155.040	KNHT574	police & public works

Woodridge 800 MHz police radio systems sites

Hobson Rd & Woodridge Dr.	856.4625	transmitter
	811.4625	receiver
	812.4625	receiver
8700 Lemont Rd	857.4625	transmitter
	811.4625	receiver
	812.4625	receiver
Heritage Bank at 75th st & Lemont Rd	811.4625	receiver
	812.4625	receiver

7600 Woodridge Dr.	811.4625	receiver
	812.4625	receiver

Woodridge Police unit numbering scheme

80-89	staff(Sgts, Deputy Chief, Chief)
90-116	patrolmen and detectives
200s	Support personnel, community service officers

Thanks **Bob** for a very complete report on the Woodridge PD.
Now on the Ohio we have a listeners profile sent in by **Rick (OH-019)** for Marion Ohio

154.755	Marion City Police, Ch 1
156.030	Marion City Police, Ch 2
154.785	Marion County Sheriff, Ch 1
155.850	Marion County Sheriff, Ch 2
44.980	Ohio State Highway Patrol, Base (post 51)
44.820	Ohio State Highway Patrol, mobile (post 51)
45.020	Ohio State Highway Patrol, plane
154.130	Marion City Fire Dept
154.130	Marion Township Fire Dept.
33.820	Marion County Fire Dept.
39.100	Marion City Street Dept.
151.130	Marion County Highway Dept.
47.300	State Highway Dept.
162.550	National Weather service
154.935	LEERN (law enforcement emergency radio network)

Columbus Ohio

460.075	Columbus Police Ch 1 (NE)
460.125	Columbus Police Ch 2 (SE)
460.275	Columbus Police Ch 3 (SW)
460.350	Columbus Police Ch 4 (NW)
460.400	NCIC Wreckers Ch 5
460.450	Record checks Ch 6
460.425	Franklin County Records Ch 7
154.310	Columbus Fire Ch 1
154.400	Columbus Fire Ch 2
460.100	Franklin County Sheriff (East)
460.225	Franklin County Sheriff (West)

Thanks **Rick** now on to Wisconsin, from **Ernst (WI-024)** we have two reports the first is for the La Crosse area.

La Crosse County:

155.430	Sheriff base Rptr
155.850	Sheriff mobile Rptr-Input
155.610	La Crosse City PD Base Rptr
154.710	La Crosse City PD mobile Rptr Input
155.520	Sheriff F2 (Car-Car)
155.145	La Crosse City PD
154.205	La Crosse City Fire

Surrounding Counties:

155.115	Buffalo Sheriff
155.775	Trempealeau Sheriff
154.815	Jackson Sheriff
155.625	Monroe Sheriff
154.995	Vernon Sheriff

Wis. State Patrol:

154.905	Dist.#5 Base
159.450	Dist.#5 Mobile

Crandon Area

Forest County - 600 Squads:

155.640	Sheriff Dept. Base
158.910	Sheriff Dept. Mobile
154.190	Crandon Fire
155.160	Crandon Area Rescue Squad
39.980	County Highway
155.370	Point to Point

Oneida County - 300 Squads

154.725	Sheriff Dept.(new Freq.)
155.640	Old Sheriff Base
158.910	Old Sheriff Mobile
155.805	EMS Paging (local Gov't freq.)

Vilas County - 200 Squads

155.640	Sheriff Base

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   158.910           Sheriff Mobile
   154.415           Fire
Lincoln County - 100 Squads
   155.640           Sheriff Base
Langlade County - 400 Squads
   155.640           Sheriff Base Rptr
   158.910           Sheriff Mobile
   151.025           Highway
Florence County - 900 Squads
   155.580           Sheriff Base
   158.790           Sheriff Mobiles
Oconto County - 700 Squads
   155.580           Sheriff Base
   158.790           Sheriff Mobiles
   151.055           Highway Dept.
Marinette County - 800 Squads
   155.535           Sheriff Base
   159.030           Sheriff Mobiles
   159.105           Highway Dept.
Menominee County - 1200 Squads
   155.640           Sheriff Base
Shawano County - 500 Squads
   155.640           Sheriff Base
Wisc. State Patrol
   155.370           Lakewood
   155.445           Dist. # 4 Base
   154.905           Dist. # 8 Base
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That's it for this month. If I'm still editor next month see yea then, if I'm not I won't.

Dave

PUBLIC SAFETY NORTH CENTRAL

Send Public Safety and Special Emergency frequencies, radio system details and questions as follows—Iowa, Kansas, Minnesota, Missouri, Nebraska, North and South Dakota:

Michael W. Scheel, 25265 35th Ave, Walcott IA 52773

IOWA >>>>>

The city of Betttendorf built a new Public Works center to free up space at City Hall. Along with the new building was a radio system for public works (the old was 155.925 BM) and the new system is on 453.100 R. It was only last week by me when I noticed that there was radio traffic from the snow plows. I usually only listen to then during an emergency.

MIKE (IA-011)

KANSAS >>>>>

This list is courtesy a friend of mine, and a member of RCMA from the very early days. He is William IL-011. We would like corrections to the list sent to me.

Kansas Counties' Highway Maintenance Freqs.

County	Freq.	Type	Callsign	City
Barber	37.960	BM	KSL316	Medicine Lodge
Barton	151.055	B	KAM271	Great Bend
	159.045	M	"	"
Butler	37.980	B	KNAP218	Eldorado
	37.980	B	KNAP219	Augusta
	37.980	B	KNAP220	Eldorado
	37.980	M	KA80263	
Chase	37.980	BM	KBB631	Cottonwood Falls
Chautauqua	151.010	R	WXR382	Sedan
	156.045	CM	"	"
Cheyenne	156.180	B	KRP670	Bird City

Coffey	156.225	BM	KNAW430	Burlington
Dicjinson	151.010	RM	KAN612	Abilene
Douglas	37.980	BM	KAP353	Lawrence
Finney	151.010	B	KTT886	Garden City
	159.075	M	"	
Ford	151.010	B	KCU764	Dodge City
	159.000	M	"	
Franklin	150.995	B	KDU567	Ottawa
	158.985	CM	"	
Graham	37.940	BM	KAM805	Hill City
Grant	151.040	BM	KRI698	Ulysses
Grey	37.940	BM	KNEZ474	Cimarron
Greeley	151.130	BM	KNEX573	Tribune
Greenwood	453.200	RM	WQM231	Eureka
Harvey	151.025	R	KAJ687	Newton
	156.045	M	"	
Jefferson	453.550	R	KNDG265	Oskaloosa
Johnson (1)	37.980	BM	KNBU881	Olathe
LaBette	156.165	B	KIK704	Oswego
	159.000	M	"	
Lane (2)	453.150	BRM	KJL579	Digton
	458.150	C	"	
Leavenworth	150.995	R	KDV670	Leavenworth
	159.165	CM	KLW60	"
Logan	37.940	B	KFV919	Oakley
	37.940	B	KAN415	Russell Spring
Lincoln	37.900	BM	KBE481	Lincoln
Linn	151.055	R	KAS305	Mound City
	159.060	M	"	
Lyon	156.195	R	KAS305	Emporia
	156.195	M	KA49913	
	156.195	B	WZT952	Allen
	159.060	CM	"	"
McPherson	453.100	BM	KNBL462	McPherson
	458.100	CM	"	"
Marion	37.900	BM	KAL278	Marion
Miami	453.100	BM	KNCK623	Paola
	458.100	CM	"	"
Mitchell	151.055	B	KSR932	Beliot
	159.060	M	"	
Morris	37.980	BM	KUQ766	Council Grove
Morton (3)	156.045	M	KB47208	
Norton	151.025	R	KVF769	Norton
	159.195	CM	"	
Osage	37.980	BM	KAW393	Lyndon
Ottawa	151.085	R	KXU345	Minneapolis
	156.060	M	"	
Pottawatomie	156.225	B	KQN918	Westmoreland
	159.045	CM	"	
Reno	150.995	R	WSX411	Partridge
Rice	37.900	BM	KAW253	Lyons
Riley	37.900	BM	KAK227	Manhattan
Rush	156.165	RKDG260	LaCroose	
	159.060	M	"	
Russell	37.940	BM	KNHY904	Russell
Saline	151.070	B	KAL275	Salina
	159.075	CM	"	"
Scott	453.100	B/pagers	KNFW500	Scott City
Seward	156.180	R	KNJA744	Liberal
	159.015		M	"
Sheridan	37.940	BM	KAM857	Hoxie
Smith	156.165	B	KAO339	Smith Center
	159.195	M	"	
Stafford	151.040	R	KDG871	Saint John
	159.015	M	"	
Sumner	453.600	BM	KAJ647	Wellington
	458.600	CM	"	"
Trego	150.995	R	KAN606	Wakeeney
	158.985	M	KS3452	
Wabaunsee	37.960	BM	KJF705	Alma
Wichita	156.165	BM	KNCU484	Leoti
Wynadotte	37.940	BM	KBT916	Kansas City

B=Base,R=Repeater,C=Control,M=Mobiles
City is 'City of License'. 458 freqs not shown if 453 is listed as R.
(1) several freqs in the area of 159 are used by Sheriff.
(2) FCC microfliche did not list any mobiles however L25 is probably M.
(3) no listing for any other town for PH. Possible expired or PL license

Again your additions or corrections of this is needed. Send to PS-NC.

MISSOURI >>>>>

Greetings and welcome to the Missouri portion of Public Safety-North Central. This month, we'll look briefly at the Missouri Conservation Commission and Department of Natural Resources. The two primary divisions of the Department of Conservation, which operates under the Conservation Commission, are "Protection" and "Forestry". The "Protection" division is concerned with the legal aspects of hunting and fishing and protection of wildlife; they are the 'conservation agents' hunters are familiar with. The "Forestry" division deals with forest resources and control of forest fires. The Department of Natural Resources is somewhat similar. The "DNR" has divisions for Energy, Environmental Quality, Geology/Land Survey, and Parks/Historic Preservation. In other words, they are the "Park Police" of Missouri's State Parks. Both agencies are equipped to some degree on the State Sheriff's Net and Nationwide Mutual Aid. Other frequencies are listed below:

Conservation: Repeater out/Mobile in

F1	151.325/159.270	Statewide common
F2	151.190/159.345	Protection
F3	151.160/159.300	Protection
F4	151.370/159.360	Protection
F5	151.415/159.255	Forestry
F6	151.220/159.240	Forestry
F7	151.475/159.315	Forestry
F8	151.400/159.435	Forestry
F9	151.265/159.465	Forestry
F10	151.355/159.450	Forestry

These channels were vacated by Conservation as the VHF repeaters were phased in - they are believed to be used now by DNR as DNR establishes their VHF high band system. Please report any low-band usage in your area:

A	31.100	Base/mobile
B	31.220	Base/mobile
C	31.300	Base/mobile
D	31.420	Base/mobile

These frequencies are used by DNR statewide with base station authorizations increasing each year:

151.310	Base/mobile (call KT2397)
153.875	Mobile (call KB47866)

Please report appearances of "DNR" units on other channels so that we might include them in upcoming reports. Representatives from "DNR" will respond to hazardous material spills if requested, so keep these channels in mind if something like this happens in your area. Be sure to write with your local frequencies and information about Missouri to Mike Redman (MO-002), PO Box 49, High Ridge, MO. 63049. Include a SASE if a reply is requested. Thanks.

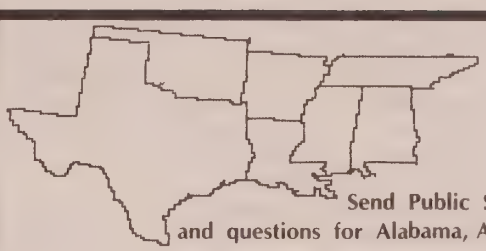
MISC. >>>>>

That's it for another month. Next month we will have corrections for Iowa counties' PH and Information for Nebraska State Highway dept. -30-

RCMA has a Telephone Number

The new RCMA telephone number is (714)545-9551. It's 'manned' by an answering machine, and while it's been established for RCMA members, its use is limited. You may leave a message concerning delivery or renewal problems; you cannot use it to request club information or order back issues. Appropriate response will be made by letter or postcard, not by telephone. Any call regarding a membership problem MUST be accompanied by your membership number.

Please remember that it is a toll call, so be sure before you dial that a written communication won't do just as well.



PUBLIC SAFETY - SOUTH CENTRAL

Send Public Safety and Special Emergency frequencies, radio system details, and questions for Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas to

Ed Lentz, 609 Yorkshire, Pasadena, TX 77503-1450

GEnie - ELENTZ DELPHI - THISARSE COMPUSERVE - 72645,172

Gee, March 1988 already. By now most of us are enjoying the nice warm weather and bracing for the spring storms. Mail has been very slow lately and I almost didn't have anything to write this month. It's hard to believe that out of the seven states that this column covers that there isn't someone with something to write about.

I'll start out with some information that I received from Brad (OH-138). He states that Haltom City FD is now on 154.370 (153.950 input) WNII217. Also Alert Care EMS in Waxahachie on 155.205 WNIA945 which is the old Daniel EMS frequency. Daniel EMS changed their name shortly after their experience with the Fort Worth system several years ago. They are now Alert Care EMS. Here in Pasadena they are licensed on and use 155.235 WNIG687.

Brad sent the following list of <u>new</u> frequencies that have not been checked out and needs some help as some of them are out of his receiving range.

City of Denton	853.0625	WNGC433	
	853.9125	----------	
	854.5625	¦	
	856.3125	¦	Most Likely a
	857.3125	¦	-- Trunked System
	858.3125	¦	
	859.3125	¦	
	860.3125	----------	
Denton County	856.2875	WNJJ690 --	
	857.2875	¦	Most Likely a
	858.2875	¦	-- Trunked System
	859.2875	¦	
	860.2875	----------	
City of Dallas (DFW Airport)	855.1625	WNIP772	
Richardson	453.450	WNHT456	
Benbrook	453.250	WNIP625	Also Ft Worth I.S.D.
Dallas County	956.800	WBH550	
	957.600		
City of Dallas	854.8625	WNIP772	
	855.1625	WNCD922	
	855.3375	WNCP922	
	855.3875	WNIP772	
	855.4375	WNIP772 - WNCD922	
	855.6125	WNCD922	
	855.6625	WNCD922 - WNIP772	
	855.6875	WNCD922 - WNIP772	
	855.7125	KNJH364	
	855.9375	WNCD922 - WNIP722	
State of Texas - Hurst	954.550	WHE207	
North Richland Hills	482.3375	WII753	
Tarrant Co - Arlington	155.655	WNJM741	
City of Cedar Hill	155.805	WNJP951	
	159.060	WNJP951	

REMEMBER these frequencies are newly licensed and we do not know what they are for. Check them out and let us know what you find on them. Your help would be appreciated.

The following is a code list for Haltom City Police Department. Again from Brad (OH-138).

HALTOM CITY POLICE CODES

0 - On Duty
1 - Minor Accident
2 - Major Accident
3 - Burg. Commercial
4 - Burg. Vehicle
5 - Alarm
6 - Ambulance
7 - Animal Complaint
8 - Assault General
9 - Burg. Residential
10 - Weapon Wi.
11 - Bomb Threat
12 - Breathtest
13 - Burg. Business
14 - Back up
15 - Civil Stnd
16 - Assault Aggravated
17 - Crim. Misch.
18 - Deceased Person
19 - Delete Message
20 - Dement person
21 - Disturbance
22 - Drug Violation
23 - Sex Offense
24 - Escort
25 - Fire Dept.
26 - Follow up
27 - Forgery
29 - Cred. Abuse
30 - House Check
31 - Injured Person
32 - Juvenile Complaint
33 - Intoxicated Person
34 - Murder
35 - Meet Compl.
36 - Missing Person
37 - Open Door/window
38 - Parking Violation
39 - Prisoner Pick Up
40 - Prisoner in Custody
41 - Prowler
42 - Radar
43 - Out of Car
44 - Robbery
45 - School Crossing
46 - Rape
47 - Indecency with Chile
48 - Special Assignment
49 - Suicide
50 - Sick Person
51 - Street Department
52 - Harassment
53 - Theft
54 - Traffic Stop
55 - City Ordinance Violation
56 - Traffic Code Violation
57 - Warrant Service
58 - Water Department
59 - Coffee Break
60 - Meal
61 - Vehicle Maintenance
62 - Disp. Relief
63 - Welfare Check
64 - Gambling
65 - Injury to a Child
66 - Restroom
67 - Feed Prisoner
68 - Out at home
69 - Out at base
70 - Complete report
71 - Suspicious Person
72 - Ass. Single
73 - Out of City
74 - Court Duty
75 - Kidnapping
76 - D.L. Check
77 - Disorderly Conduct
78 - Wrecker
79 - Accident Hit and Run
80 - Abandoned Vehicle
81 - Bank Detail
82 - Business Check
83 - Dog Bite Victim
84 - Disturbance Domestic
85 - DWI +
86 - Fight
87 - Hospital Report
88 - Jail Check
89 - Person with Gun
90 - Report to St.
91 - Stolen Vehicle
92 - Suspicious Person in Vehicle
93 - Indecent Exposure
94 - Disregard
101- Fireworks

To help fill up the column here is a list of Fire Departments from the Houston Texas area. This list was confirmed as of November 25, 1987. Thanks to all the Houston Area folks for the list.

FIRE DEPARTMENTS.....
11/25/87

ALDINE		33.860	
ALIEF		33.520	
ALTA LOMA		154.145	
ALVIN	(city)	46.080	(1)
	(county)	46.140	(2)
ANGLETON		46.140	
ARCADIA		154.370	
ATASCOCITA		33.620	
BACLIFF		154.370	
BAYTOWN		855.2125	
BEASLEY		155.925	
BEAUMONT RD		154.145	
BELLAIRE		460.600	
BLUE RIDGE		154.250	
BROOKS		453.100	
BRAZORIA CO		46.140	
CHAMPIONS		33.940	
CHANNENVIEW		154.370	
CHAN.IND MUTUAL AID		488.887	(1)
		489.087	(2)
		489.112	(3)

CLEAR LAKE CITY	453.100	
CLEVELAND	154.070	
CLOVERLEAF	153.950	
CONROE (county)	154.190	(1)
(administrative)	154.250	(2)
(city)	154.325	(3)
(mutual aid)	154.280	(4)
CROSBY	154.370	
CY-CREEK	33.780	(1)
(fireground)	33.600	(2)
(1960 firegnd)	33.700	(5)
CY-FAIR	33.880	
DEER PARK	154.220	
DICKINSON	154.370	
EAST MT HOUSTON	33.760	
EASTEX	33.860	
FOREST BEND	154.235	
FOREST GROVE	154.235	
FRESNO	154.250	
FRIENDSWOOD	154.965	
FULSHEAR	154.415	
GALENA PARK	154.430	
GALVESTON	151.115	
GALVESTON CO	154.370	
HIGHLANDS	154.370	
HITCHCOCK	154.355	
HOUSTON (dispatch)	453.425	(1)
(fireground)	453.500	(2)
(fire prevention)	453.675	(3)
(arson)	453.950	(4)
HUFFMAN	154.445	
HUMBLE	154.415	
JACINTO CITY	154.415	
JERSEY VILLAGE	153.950	
KATY	37.260	(1)
	37.180	(2)
KEMAH	154.370	
KINGWOOD	154.400	
KLEIN	33.840	(1)
	33.440	(2)
LA MARQUE	154.190	
LA PORTE	154.130	
LEAGUE CITY	154.370	
LITTLE YORK	33.640	
MAGNOLIA	154.340	
MANVEL	46.140	
	46.280	
MC NAIR	154.370	
MISSOURI CITY	154.400	
MONTGOMERY CO(dispatch)	154.190	(1)
(administrative)	154.250	(2)
(Conroe)	154.325	(3)
(mutual aid)	154.280	(4)
MUTUAL AID	33.980	
	154.280	
NASSAU BAY	154.205	
NEEDVILLE	154.175	
N.E.FT BEND CO	154.235	
NORTHWEST	33.820	
PASADENA	154.010	(1)
	153.770	(2)
	154.280	(3)
PEARLAND	46.420	(1)
	46.140	(2)
PECAN GROVE	154.445	
PONDEROSA	33.900	
RICHMOND	45.320	
ROSEHILL	153.950	
ROSENBERG	46.060	(1)
	46.420	(2)
SEABROOK	154.385	
SHELDON	154.340	
SHORE ACRES	154.325	
SOUTHEAST	154.445	
S.HOUSTON	488.537	
S.MONT CO	154.355	
S.SIDE PLACE	154.980	
SPRING	154.205	
STAFFORD	154.070	
SUGAR LAND	154.355	
TEXAS CITY	154.430	
THE WOODLANDS	155.040	
THOMPSONS	154.205	
TOMBALL	153.950	
VILLAGE	154.130	
WEBSTER	154.235	
WEST LAKE	33.740	
WEST UNIVERSITY PL	155.040	
WESTFIELD	33.860	
WEST I-10	855.9625	
WHARTON	154.340	(1)
	154.370	(2)

That about does it for this month. Sorry for the column being so short but if you don't send anything in it's going to be this way. Hopefully next month there will be some information on the "ALL TEXAS CONVENTION" that will be coming up shortly.

PUBLIC SAFETY—NORTH EAST

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows—New England States, New York, Pennsylvania, New Jersey, Maryland, Deleware, and District of Columbia:

Gary Saffer, 6 Roach Road, Stoughton, MA 02072

WELCOME TO THE MARCH EDITION OF PSNE. WE HAVE LOTS OF INFORMATION THIS MONTH, BUT FIRST I WOULD LIKE TO CATCH UP ON SOME BITS AND PIECES THAT HAVE BEEN ACCUMULATING FOR A WHILE. FIRST, IN BOSTON THE METRO POLICE HAVE STARTED TO USE THE NEW RADIO SYSTEM ON A LIMITED BASIS. MOTORCYCLE OFFICERS AND SOME OTHER UNITS HAVE BEEN USING TRUNKED PORTABLES BOTH FOR REGULAR PATROL AND SPECIAL EVENTS. I HAVE SEEN NO CARS EQUIPPED WITH NEW RADIOS AND THE THE CONTROLLER FOR THE MOBILE DATA TERMINALS HAS JUST GONE OUT TO BID BUT PROGRESS IS BEING MADE. THE BEST GUESS THAT I HAVE HEARD IS LATE SPRING OF 1988 FOR THE SYSTEM TO BE COMPLETE.

OTHER BITS AND PIECES AS FOLLOWS: FROM KEVIN (NY-314) REGARDING THE OCTOBER '87 CONN STATE POLICE CODES THE FIRST ONE LISTED IS THE ONE USED ON AIR/// FROM WALTER (CT-074) WATERBURY CONN FIRE 154.325 DISPATCH 154.415 RPT FIREGROUND/ WEST HARTFORD CT FIRE 166.250 DISPATCH 154.385 FIREGROUND / NORTHBORO MA FIRE 154.445/ AMESBURY,NEWBURYPORT,SALISBURY FIRE DEPTS. 158.955 /// FROM JAMES (NY-405) TARRYTOWN NY FIRE DEPT IS NOW PAGING ON 156.225 /// FROM SEBASTIAN (CT-064) ROCKY HILL CT POLICE 453.925 NOT 453.525 AS PREVIOUSLY LISTED CAR TO CAR IS 458.500/ ROCKY HILL FIRE IS 453.575/ WEST HARTFORD CT POLICE 858.2625 CH 1, 859.2625 CH 2 PROFFESSIONAL AMBULANCE SERVICE 155.220, 155.355/ HARTFORD CT FIRE CH1 154,310 RPT CH 2 154.203 INPUT TO RPT, CH 3 155.940, CH 4 153.830.
Ron Dysart 26 Stevenson Ave Everett MA 02149 WOULD LIKE TO EXCHANGE FEDERAL FREQRENCIES WITH ANYONE WHO IS INTERESTED.

TWO MORE ITEMS THAT MADE IT JUST IN TIME. FIRST FROM LOHR (PA-178) WHO NOW LIVES IN VERMONT SOME NEW HAMPSHIRE AND VERMONT INFO.

NEW HAMPSHIRE FISH AND GAME DEPT.

PRIMARY REPEATER	151,340	200-209	SUPERVISORS
SECONDARY REPEATER	151.325	210-269	GAME WARDENS
CAR TO CAR SIMPLEX	159.465	270-299	INVESTIGATORS/SPECIAL UNITS
1-99 STATE FOREST SERVICE		300's	STATE FISHERIES/BIOLOGISTS
200's FISH AND GAME AS ABOVE		900's	STATE PARKS AND RECREATION DEPT.

(THE FOREST SERVICE AND PARKS AND RECREATION DEPT. ALSO HAVE THEIR OWN RADIO SYSTEMS)
THE FISH AND GAME DISPATCH CENTER IS IN CONCORD AND USES SIX REPEATERS ACROSS THE STATE TO PROVIDE COVERAGE. AFTER 5 P.M. DISPATCH IS DONE BY THE STATE POLICE. TOWERS ARE IDENTIFIED BY A LETTER A-F.
WARDENS HAVE TWO,FOUR, OR EIGHT CHANNEL RADIOS DEPENDING ON THE AGE OF THE RADIO. THE EIGHT CHANNEL RADIOS HAVE 155.475, THE NATIONAL LAW ENFORCEMENT CHANNEL, TWO HEAR CHANNELS 155.340 AND 155.385, AND LOCAL OR COUNTY POLICE FREQUENCIES IN ADDITION TO F&G FREQUENCIES. WARDENS HAVE BEEN HEARD ON THE GRAFTON COUNTY SHERIFF'S REPEATER IDING AS 700-SERIES UNITS.

LOHR ALSO OFFERS SOME CORRECTIONS TO THE VERMONT LISTING IN THE NOVEMBER 1987 ISSUE. THE FORMER TROOP K AT MIDDLESEX WAS ERRONEOUSLY IDENTIFIED AS BEING PART OF TROOP B. IN FACT MIDDLESEX AND BETHEL COMPRISETROOP E AND ARE IN FACT 600 SERIES UNITS. IN ADDITION 700 SERIES UNITS WHICH WERE NOT LISTED ARE SPECIAL OPERATIONS UNITS OF SOME SORT, 80 SERIES ARE VERMONT EMERGENCY MANAGEMENT AND 155,156 ARE DEPT. OF HEALTH VEHICLES. LAST, AN 1100 SERIES HAS BEEN ADDED AND THESE ARE FEDERAL AGENCIE ON VSP FREQUENCIES. THANK YOU LOHR FOR THOSE UPDATES, NOW THAT YOU ARE LIVING IN VERMONT I HOPE TO GET A LOT OF NORTH COUNTRY LISTINGS FROM YOU.

THE LAST MISCELANEOUS ITEM BEFORE I GET TO THIS MONTH'S LONGER LISTING IS FROM AN ANONYMOUS PA SOURCE. IT IS INTERESTING AND HOPEFULLY YOU PA MEMBERS WILL BE ABLE TO PIECE TOGETHER THE REST OF THE INFORMATION.
IT APPEARS THAT SOMETIME IN EARLY 1987 THE PENNSYLVANIA STATE POLICE INSTALLED A NEW RADIO SYSTEM WITH MOTOROLA SYNTOR X-9000 MOBILES AND UNKNOWN TYPE CONSOLES. THIS ACCOUNTS FOR THE PAGER WARBLES HEARD ON THE MOBILE TO MOBILE FREQUENCY OF 154.755. THE CHANNEL PLAN REMAINS THE SAME (A-B-C) BUT THEIR ARE SOME IMPORTANT CHANGES.
1. MOBILES IN WESTMORELAND COUNTY (AND PRESUMABLY ELSEWHERE) ARE EQUIPPED WITH ALL LOCCALLY USED HIGH BAND FREQUENCIES. THIS INCLUDES LOCAL AND COUNTY POLICE,FIRE, AND EMS FREQUENCIES. THIS ALLOWS THE PSP MOBILES TO COMMUNICATE WITH UNITS FROM THESE OTHER AGENCIES DIRECTLY WITHOUT GOING THROUGH THE VARIOUS DISPATCHERS. PSP BASES DO NOT HAVE THIS CAPABILITY. THESE VARIOUS FREQUENCIES ARE PROGRAMMED INTO THE SYNTHESIZED RADIOS 100 CHANNEL MEMORY, THE FREQUENCY MIX PROBABLY CHANGES FROM COUNTY TO COUNTY.
2. IN ADDITION TO THE A-B-C PAIRS AND MOBILE TO MOBILE FREQ EACH RADIO IS PROGRAMMED WITH PSP ONLY CHANNELS DESIGNATED TAC ONE,TAC TWO ETC. TAC ONE IS 155.460 SIMPLEX. (THE SOURCE SUGGESTS LOOKING IN THE POLICE CALL BOOK TO LOCATE OTHER POSSIBLE STATE POLICE MOBILE ONLY FREQUNECIES, I WILL LIST THEM BELOW FOR YOU. I WOULD ALSO SUGGEST LISTENING TO 155.475 IF THAT IS NOT ALREADY USED AS AN INTER AGENCY FREQUENCY IN PA.)
3. A FINAL DETAIL PSP UNITS CAN NOW HEAR THE MOBILE SIDE OF THE RADIO TRAFFIC ON THE A-B-C PAIRS WHICH THEY WERE NOT PREVIOUSLY ABLE TO DO

VHF POLICE MOBILE ONLY LISTINGS AS PER POLICE CALL

154.650	155.850	156.030	158.970
.770	.910	.090	159.030
.890	.970	.150	
.950	.985	158.910	

OUR FIRST LARGE CONTRIBUTION THIS MONTH IS FROM JOHN (NY-308) WHO SENDS NEW YORK & NEW HAMPSHIRE FREQUENCIES IN PROFILE FORM. THIS IS SO WELL DONE THAT I HAVE ELECTED TO RUN IT EXCACTLY AS HE SENT IT. THNK YOU JOHN FOR A VERY WELL DONE PIECE.

SUFFOLK COUNTY, LONG ISLAND, NEW YORK FREQUENCIES

37.82	SUFFOLK COUNTY WATER AUTHORITY
39.08	VILLAGE OF BELLE TERRE POLICE
39.08	VILLAGE OF HEAD OF THE HARBOR POLICE
39.30	VILLAGE OF OLD FIELD POLICE
45.08	VILLAGE OF LINDENHURST AUXILLARY POLICE
45.12	TOWN OF SMITHTOWN GOVERNMENT
45.20	VILLAGE OF AMITYVILLE - FIRE & POLICE DEPTS.
45.32	VILLAGE OF BABYLON DEPT. OF PUBLIC SAFETY
45.32	VILLAGE OF PATCHOGUE AUXILLARY POLICE
45.44	VILLAGE OF LAKE GROVE GOVERNMENT & HIGHWAY DEPT.
45.48	TOWN OF BABLON ANIMAL CONTROL
45.64	TOWN OF BROOKHAVEN HIGHWAY DEPT.
45.80	SUFFOLK COUNTY HIGHWAY DEPARTMENT
45.88	STATEWIDE FIRE MUTUAL AID
46.30	SUFFOLK COUNTY FIRE DEPTS. - PORTABLES
46.34	SUFFOLK COUNTY FIRE DEPTS. - TOWNS OF BABYLON, HUNTINGTON, SOUTHOLD & EAST HAMPTON
46.36	SUFFOLK COUNTY FIRE DEPTS. - TOWN OF BROOKHAVEN - NORTH
46.38	SUFFOLK COUNTY FIRE DEPTS. - COUNTYWIDE MUTUAL AID
46.40	SUFFOLK COUNTY FIRE DEPTS. - TOWN OF BROOKHAVEN - SOUTH
46.44	SUFFOLK COUNTY FIRE DEPTS. - TOWNS OF ISLIP & SMITHTOWN
46.46	SUFFOLK COUNTY FIRE DEPTS. - COUNTYWIDE DISPATCH
46.48	SUFFOLK COUNTY FIRE DEPTS. - TOWNS OF RIVERHEAD & SOUTHAMPTON
46.52	VILLAGE OF BROOKHAVEN FIRE DEPT. - FIREGROUND-F4
46.58	NORTH PATCHOGUE FIRE COMMUNICATIONS CENTER
47.22	NEW YORK STATE DEPT. OF TRANSPORTATION - MOBILES
47.32	NEW YORK STATE DEPT. OF TRANSPORTATION - BASES
47.42	RED CROSS
151.325	LONG ISLAND STATE PARK COMMISSION - CH.3
153.35	GRUMMAN AEROSPACE CORP. - SECURITY, FIRE & CRASH
153.68	LILCO - BRENTWOOD UNDERGROUND
153.935	BROOKHAVEN TOWN DEPT. OF PUBLIC SAFETY - MOBILES to 158.88
154.055	SUFFOLK CO. DEPT. OF PUBLIC WORKS & CIVIL DEFENSE
154.07	VILLAGE OF SMITHTOWN FIRE DEPT. - FIREGROUND
154.13	VILLAGE OF CORAM FIRE DEPT. - FIREGROUND
154.145	VILLAGE OF CORAM FIRE DEPT. - FIREGROUND
154.665	NEW YORK STATE POLICE - L.I. PARKWAYS - CAR TO CAR
154.845	SUFFOLK COUNTY POLICE - 2nd PRECINCT
154.845	TOWN OF SOUTHAMPTON POLICE
154.98	TOWN OF ISLIP GOVERNMENT
155.07	NEW YORK STATE INSTITUTIONS - POLICE & FIRE
155.175	SUFFOLK COUNTY AMBULANCE BASES
155.235	COMMACK VOLUNTEER AMBULANCE
155.28	SUFFOLK COUNTY MEDCOM & FIRE MARSHALL PAGING
155.295	BRENTWOOD LEGION & MEDFORD VOLUNTEER AMBULANCE BASES
155.325	SUFFOLK COUNTY HOSPITALS - AMBULANCE TO HOSPITALS
155.37	NEW YORK STATE POLICE DEPTS. - STATEWIDE INTERSYSTEM
155.415	SUFFOLK COUNTY SHERIFFS DEPT.
155.46	NEW YORK STATE POLICE - L.I. PARKWAYS - TROOP L
155.505	NEW YORK STATE POLICE - EASTERN LONG ISLAND
155.52	NEW YORK STATE POLICE - MOBILES to 155.505
155.58	SUFFOLK COUNTY POLICE - 6th PRECINCT
155.58	VILLAGE OF AMITYVILLE POLICE
155.61	NORTHPORT VILLAGE POLICE
155.61	VILLAGE OF ASHAROKEN POLICE
155.625	VILLAGE OF SOUTHAMPTON POLICE
155.655	SUFFOLK COUNTY POLICE - DETECTIVES - CH.E (CH.7)
155.67	VILLAGE OF OCEAN BEACH POLICE
155.685	SUFFOLK COUNTY POLICE - COMMAND - CH.G
155.70	SUFFOLK COUNTY POLICE - 1st PRECINCT
155.70	TOWN OF RIVERHEAD POLICE
155.76	SUFFOLK COUNTY DEPT. OF PARKS
155.79	SUFFOLK COUNTY POLICE - DATA - CH.C (CH.9)
155.805	NEW YORK STATE UNIVERSITY - FARMINGDALE

155.85 SUFFOLK COUNTY POLICE - 3rd PRICINCT
155.85 TOWN OF SOUTHOLD POLICE
155.91 SUFFOLK COUNTY POLICE - 4th PRECINCT
155.91 TOWN OF EAST HAMPTON POLICE
155.985 SUFFOLK COUNTY POLICE - 5th PRECINCTS
156.03 SUFFOLK COUNTY POLICE - CAR TO CAR - CH.B (CH.8)
156.03 VILLAGE OF LLOYD HARBOR POLICE
156.03 VILLAGES OF QUOGUE & WESTHAMPTON POLICE
158.16 LILCO - BRENTWOOD SERVICE SECTION
158.235 LILCO - RIVERHEAD
158.775 TOWN OF SMITHTOWN AUXILLARY POLICE
158.88 TOWN OF BROOKHAVEN DEPT. OF PUBLIC SAFETY
158.925 SUFFOLK COUNTY GOVERNMENT - MOBILES to 154.055
159.225 N.Y.S. DEPT. OF ENVIRONMENTAL CONSERVATION POLICE - STONY BROOK BASE
159.42 NEW YORK STATE PARK POLICE
159.435 N.Y.S. DEPT. OF ENVIRONMENTAL CONSERVATION - STONY BROOK BASE
453.125 STONY BROOK UNIVERSITY - PAGING
453.25 TOWN OF SOUTHAMPTON AMBULANCE DISPATCH
453.825 TOWN OF RIVERHEAD GOVERNMENT & AMBULANCE DISPATCH
460.05 STONY BROOK UNIVERSITY SECURITY
462.950 SUFFOLK COUNTY ALS DISPATCH - MED 9
462.975 SUFFOLK COUNTY ALS DISPATCH - MED 10
463.000 SUFFOLK COUNTY ALS - MED 1 Mobiles - 468.000
463.025 SUFFOLK COUNTY ALS - MED 2 Mobiles - 468.025
463.050 SUFFOLK COUNTY ALS - MED 3 Mobiles - 468.050
463.075 SUFFOLK COUNTY ALS - MED 4 Mobiles - 468.075
463.100 SUFFOLK COUNTY ALS - MED 5 Mobiles - 468.100
463.125 SUFFOLK COUNTY ALS - MED 6 Mobiles - 468.125
463.150 SUFFOLK COUNTY ALS - MED 7 Mobiles - 468.150
463.175 SUFFOLK COUNTY ALS - MED 8 Mobiles - 468.175
464.250 STONY BROOK UNIVERSITY MAINTENANCE
471.2875 VILLAGE OF MELVILLE FIRE DEPT. - FIREGROUND
471.3375 TOWN OF ISLIP DEPT. OF PUBLIC SAFETY - CAR TO CAR
471.3875 TOWN OF ISLIP DEPT. OF PUBLIC SAFETY
472.9625 TOWN OF BABYLON DEPT. OF PUBLIC SAFETY
477.2125 LONG ISLAND ISLIP-MACARTHUR AIRPORT OPERATIONS
477.3375 TOWN OF HUNTINGTON DEPT. OF PUBLIC SAFETY

NEW HAMPSHIRE FREQUENCIES

33.90 LAKES REGION MUTUAL FIRE AID ASSN. - "LAKES REGION" - KBZ283 - ALEXANDRIA, ALTON, ANDOVER, ASHLAND, BELMONT, BRISTOL, CENTER BARNSTEAD, CENTER HARBOR, CAMPTON-THORNTON, DANBURY, FRANKLIN, GUILFORD, HEBRON, HILL, HOLDERNESS, LACONIA, MEREDITH, MOULTONBOROUGH, NEW HAMPTON, PLYMOUTH, SANDWICH, STRAFFORD, TILTON, WATERVILLE VALLEY +
45.26 NEW HAMPSHIRE STATE POLICE - TROOP F TWIN MOUNTAIN - KRE261
NEW HAMPSHIRE STATE POLICE - TROOP E
151.295 NEW HAMPSHIRE STATE FOREST FIRE SERVICE - CH.B
151.34 NEW HAMPSHIRE FISH & GAME DEPT. - CH.A - STATION F TWIN MTN. - KCA999
151.445 NEW HAMPSHIRE FOREST SERVICE - CH.C
154.13 BERLIN FIRE DEPT.
154.145 MT. WASHINGTON VALLEY MUTUAL AID - "CARROLL FIRE BASE" - KLX215 - WAKEFIELD, OSSIPEE RESCUE, CENTER OSSIPEE, WEST OSSIPEE, OSSIPEE CORNER,SANBORNVILLE, TUFTONBORO, WOLFBORO, EFFINGHAM, FREEDOM, EAST WAKEFIELD, TAMWORTH FIRE & RESCUE, MADISON, RESCUE UNITS 8-X & 9-X +
154.175 OSSIPEE VALLEY MUTUAL AID ASSN. - "CARROLL FIRE BASE" - KSZ959 - F1, GLEN, JACKSON +
154.19 ROCKINGHAM COUNTY FIRE DISPATCH - WNEB875 - ATKINSON, CANDIA FIRE & RESCUE, GREENLAND, KINGSTON, SANDOWN RESCUE +
154.34 OSSIPEE VALLEY MUTUAL AID ASSN. - "CARROLL FIRE BASE" - KSZ959 - F2

154.355	CAPITAL AREA FIRE MUTUAL AID - KVF642 - ALLENTOWN FIRE & RESCUE, BRADFORD RESCUE, EPSOM, LOUDON, NORTHWOOD, PITTSFIELD RESCUE, SALISBURY +
154.445	TOWN OF CONWAY AMBULANCE DISPATCH - WNAN293
154.815	ROCKINGHAM COUNTY SHERIFF DEPT. - KCB598
154.83	BELKNAP COUNTY SHERIFF DEPT. & RESCUE DISPATCH - KCF946
154.86	CARROLL COUNTY SHERIFF OFFICE - KJP500 CARROLL FIRE BASE - KSZ959
154.77	GRAFTON COUNTY SHERIFF DEPT. - WGW80
155.085	TOWN OF GORHAM FIRE DEPT. & LOCAL GOVERNMENT
155.175	AMBULANCE TO HOSPITAL - LAKES REGION GENERAL HOSPITAL - KNDS840
155.34	AMBULANCE TO HOSPITAL - ANDROSCOGGIN VALLEY HOSPITAL - LITTLETON HOSPITAL - MEMORIAL HOSPITAL
155.37	CITY OF BERLIN POLICE
155.385	MEMORIAL HOSPITAL & LAKES REGION HOSPITAL
155.475	NEW HAMPHIRE STATE POLICE - INTERSYSTEM
155.415	ROCKINGHAM COUNTY SHERIFF DEPT.
155.475	NEW HAMPSHIRE POLICE INTERSYSTEM
155.49	TOWN OF GILFORD POLICE - KQS687
155.52	GORAHM EMERGENCY DISPATCH - POLICE & AMBULANCE HILLSBOROUGH COUNTY SHERIFF DEPT.
155.64	TOWN OF CONWAY POLICE DEPT.
155.685	MERRIMACK COUNTY SHERIFF DEPT.
155.76	TOWN OF CONWAY FIRE DEPTS. & RESCUE - WNDM653 TOWN OF BOW POLICE & RESCUE DISPATCH - KCH727
155.79	CITY OF LACONIA POLICE
155.88	MILAN DISPATCH - MILAN POLICE & FIRE DEPT., DUMMER FIRE DEPT., MILAN-DUMMER AMBULANCE
155.91	NEW HAMPSHIRE STATE POLICE - TROOP F - TWIN MOUNTAIN - KCA999/KRE261
156.09	NEW HAMPSHIRE STATE POLICE
159.285	N.E. NEW HAMPSHIRE FOREST FIRE
159.345	NEW HAMPSHIRE DEPT. OF CONSERVATION
453.925	NEW HAMPSHIRE DEPT. OF PUBLIC WORKS & HIGHWAYS
456.175	N.E. NEW HAMPSHIRE FIRE REPEATER - REPEATER FOR 154.145 & 154.175
456.475	LAKES REGION MUTUAL FIRE AID ASSN. - REPEATER FOR 33.90 & 33.96
462.45	NEW HAMPSHIRE STATE POLICE
463.95	APPALACHIAN MOUNTAIN CLUB REPEATER

NOTES

COUNTY SHERIFFS ARE ALSO INTERSYSTEMS WITH LOCAL TOWN & VILLAGE POLICE.

STATE POLICE ON 155.91 INTERSYSTEM WITH COUNTY SHERIFFS.

STATE POLICE ON 151.34 WITH FISH & GAME UNITS.

CARROLL FIRE BASE PAGES OUT FIRE UNITS ON 154.86 & 154.175 AT THE SAME TIME AND THEN DISPATCHES ON 154.175.

456.175 & 456.475: THESE REPEATERS AT TIMES REPEAT FIRE COMMUNICATIONS FROM AS FAR AWAY AS NEW YORK AND CONNECTICUT.

WE HAVE AN EAST CENTRAL CONNECTICUT LISTENER PROFILE FROM STEPHEN (CT-069) THIS IS VERY EXSTENSIVE AND DETAILED, IDID SOME EDITING TO ELIMATE A FEW FREQUENCIES THAT EITHER ARE NOT PUBLIC SAFETY RELATED OR NOT ACTIVE.

EAST CENTRAL CONNECTICUT

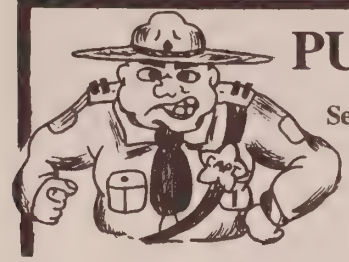
453.800	WINDSOR FIRE
45.86	STATE POLICE HOTLINE
460.275	EAST WINDSOR POLICE
33.80	DISPATCH TN/WW/QV/KX FIRE AND EMS
33.90	FIRE OPS FOR TOLAND AND WILLIMANTIC
33.94	HARTFORD COUNTY FIRE AND EMS
462.625	VERNON POLICE CH. 4 VARIOUS VERNON TOWN AGENCIES INCLUDING FIRE AND EMS ALSO VARIOUS PRIVATE BUSINESSES
45.10	SOUTH WINDSOR POLICE
33.78	BACK UP FOR 33.90 ALSO TO/WW/QV/UCO/M

33.84 ENFIELD FIRE, SOUTHBURY SCHOOL FIRE
460.325 VERNON POLICE CH 1 WATERTOWN POLICE AND FIRE
155.610 WINDSOR LOCKS POLICE AND EMS REPEATER
42.04 STATE POLICE TROOPS H/E/G
42.36 STATE POLICE TROOPS C/K/D
46.16 CONNECTICUT STATEWIDE FIRE NETWORK
33.44 FIRE OPS FOR TOWN OF TOLLAND
33.88 MEDICAL OPS FOR TOLLAND AND WILLIMANTIC COUNTIES
42.48 STATE POLICE TROOPS F AND I
33.64 STATION KWILLIMANTIC FIRE DEPT.
33.70 LITCHFIELD COUNTY FIRE DEPARTMENTS
33.96 THOMPSONVILLE FD-VALLEY-SHORE, SOUTH WINDSOR SECONDARY
42.20 STATE POLICE RADAR
42.24 STATE POLICE RADAR
45.24 SOUTH WINDSOR HIGHWAY DEPARTMENT
46.00 SOUTH WINDSOR AMBULANCE, WINDSOR BUSES
453.425 EAST WINDSOR CIVIL DEFENSE ALSO POLICE AND EMS
33.50 BURLINGTON FIRE BACK UP FOR MANCHESTER AND WINDSOR LOCKS FIRE
45.14 COVENTRY PD/PLYMOUTH POLICE AND FIRE
154.130 SUFFIELD FIRE
42.30 STATE POLICE
42.32 STATE POLICE
155.385 LIFE STAR AIR AMBULANCE
33.48 FUTURE VERNON FIRE OPS ??? TN AND SOME OFFICERS HAVE THIS FREQ
460.550 ENFIELD POLICE
156.000 NEWINGTON AMBUALNCE AND OTHER TOWN AGENCIES
453.100 VERNON PUBLIC WORKS
44.68 CONNECTICUT DEPARTMENT OF EMERGENCY PREPAREDNESS
460.600 EAST HARTFORD FIRE AND EMS
462.950 MED 9 (TOLLAND COORDINATOR) HARTFORD AMBULANCE DISPATCH AND NORTH CENTRAL C-MED
462.975 MED 10 AMBULANCE OF MANCHESTER C-MED NORTH CENTRAL
45.52 STATE POLICE TROOPS A/B/L
33.56 UCONN FIRE
154.445 NEWINGTON FD
460.425 NEWINGTON PD
33.04 FARMINGTONFDs
45.12 BERLIN FDs
153.890 MANCHESTER FD
460.125 MANCHESTER PD
154.665 STATE POLICE TROOP TO TROOP AND PAGERS
42.18 STATE POLICE
42.58 STATE POLICE
155.575 STATE POLICE
159.15 STATE POLICE REPEATER (POLICE CALL SAYS STATE COLLEGE SECURITY ED:)
453.575 ROCKY HILL FIRE
463.000 MED ! BASE TOLLAND COUNTY HOSPITALS 468.000 MOBILE FREQ
453.525 ELLINGTON CONSTABLES AND TOWN GOVERNMENT
155.085 WINDSOR LOCKS AMBULANCE PAGERS
155.730 SUFFIELD POLICE
46.18 PORTLAND, MIDDLETOWN FDs KX

ADDITIONAL INFORMATION
33.90 ALSO AVAILABLE TO UC,BROAD BROOK FD,GROTON,VALLEY SHORE EMERGENCY SERVICES COMMISION,WATERFORD
33.44 ALSO AVAILABLE TO OTHER TOLLAND COUNTY FDs
33.94 INCLUDES EIGHTH UTILITIES DISTRICT FD IN MANCHESTER ALSO AVAILABLE TO ELLINGTON FD
46.18 ALSO CROMWELL,DURHAM,VALLEY SHORE

N=STATION N NORWICH M= STATTION M MONTVILLE TN,TC AND TO= TOLLAND COUNTY MUTUAL AID ASSOCIATION WW=WILLIMANTIC AREA FIRE ASSOCIATION QV=QUINEBAUG VALLEY EMERGENCY COMMISION UC AND UCO= UNIVERSITY OF CONNECTICUT KX=COLCHESTER EMERGENCY COMMISION INC

WELL THAT'S ALL THE ROOM THAT WE HAVE FOR THIS MONTH. NEXT MONTH MORE, AT LEAST THERE WILL BE IF I RECIEVE ANYTHING. I WOULD LIKE TO HEAR FROM READERS IN PHILADELPHIA, PITTSBURGH AND WASHINGTON DC SINCE WE HAVE YET TO SEE MUCH FROM THOSE AREAS. GODDBYE FOR NOW.



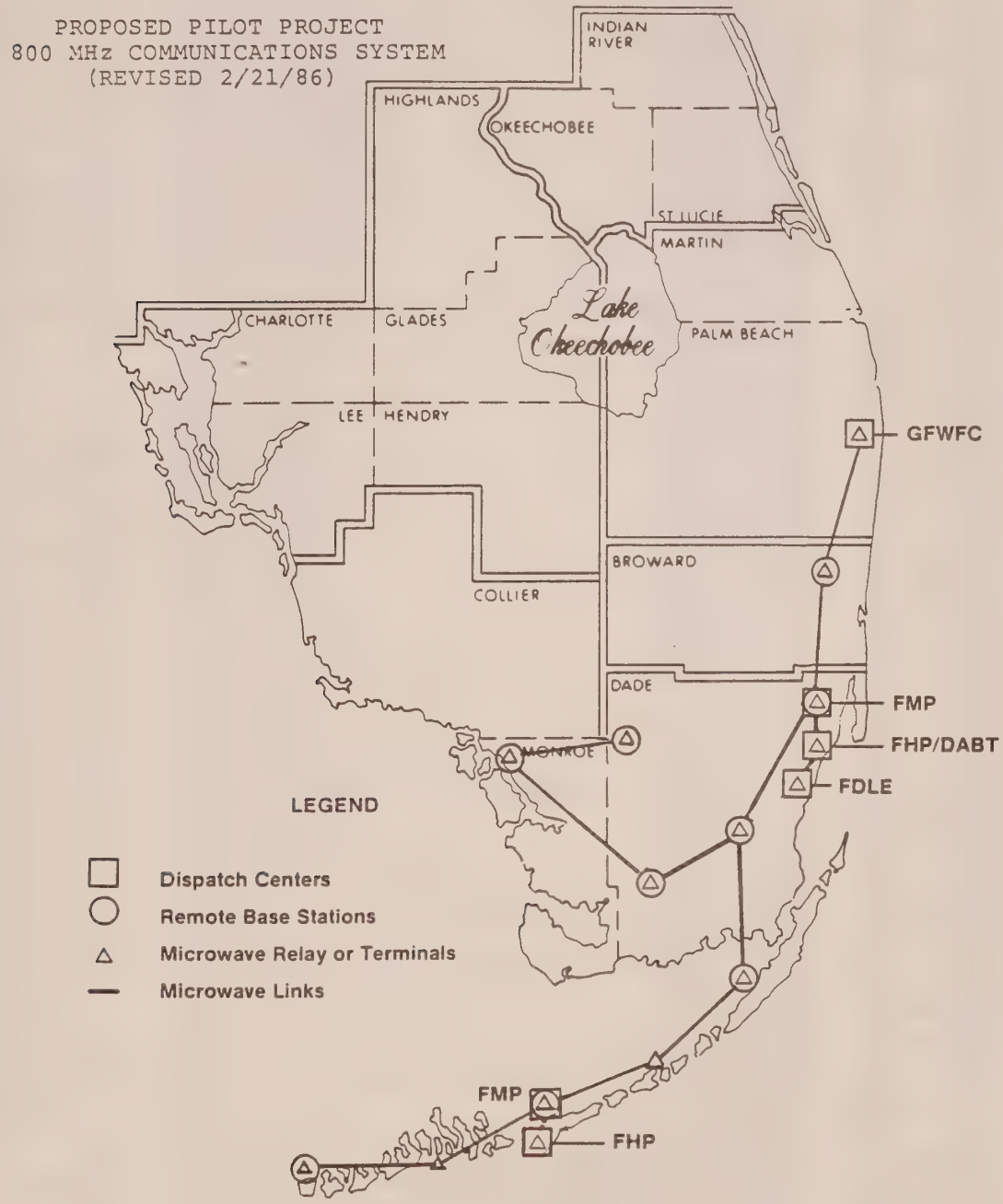
PUBLIC SAFETY—SOUTH EAST

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows—Florida, Georgia, N. Carolina, S. Carolina, W. Virginia and Virginia:

Jorge L. Rodriguez, 1129 Castile, Coral Gables, FL 33134

Florida Planning Statewide 800 MHz. System

The state of Florida in February of 1986 received a report of the Joint Task Force on State Agency Law Enforcement Communications recommending a statewide 800 MHz. radio system for state law enforcement agencies. The task force after studying the deficiencies of present VHF and UHF based systems recommended that the state move to a statewide 800 MHz. trunked radio system.



Beginning with a Pilot Project in Dade, Broward and Monroe Counties, the system would provide telephone and data circuits, via microwave radio. At a projected cost of just over 100 million dollars the new system the task force said could be implemented

over a 10 year period. "The resulting system should be useful to beyond the year 2000.

Currently state law enforcement agencies use frequencies throughout the spectrum with agencies like Florida Marine Patrol still on VHF low and Florida Highway Patrol using frequencies in all three major bands - VHF low, VHF hi and UHF.

Beaufort County, South Carolina
PART I

From Robert (SC-032)

LOCAL	DATE	FLAGS	COMMENTS	LOCATION
37.0200		MNF	POLICE DEPARTMENTS	
37.0400		MNF	POLICE DEPARTMENTS	
37.0600		MNF	POLICE DEPARTMENTS	
37.0800		MNF	POLICE DEPARTMENTS	
37.1000		MNF	POLICE DEPARTMENTS	
37.1200		MNF	POLICE DEPARTMENTS	
37.1400		MNF	POLICE DEPARTMENTS	
37.1600		MNF	POLICE DEPARTMENTS	
37.1800		MNF	POLICE DEPARTMENTS	
37.2000	8703	MN	POLICE DEPARTMENTS	
37.2200		MNF	POLICE DEPARTMENTS	
37.2400		MNF	POLICE DEPARTMENTS	
37.2600		MNF	POLICE DEPARTMENTS	
37.2800		MNF	POLICE DEPARTMENTS	
37.3000		MNF	POLICE DEPARTMENTS	
37.3200		MNF	POLICE DEPARTMENTS	
37.3400		MNF	POLICE DEPARTMENTS	
37.3600		MNF	POLICE DEPARTMENTS	
37.3800		MNF	POLICE DEPARTMENTS (MOBILE)	
37.4000		MNF	POLICE DEPARTMENTS	
37.4200	8611	MNF	POLICE DEPARTMENTS (MOBILE)	
39.0200		MNF	POLICE DEPARTMENTS	
39.0400		MNF	POLICE DEPARTMENTS	
39.0600		MNF	POLICE DEPARTMENTS (LOW POWER POLICE)	
39.0800		MNF	POLICE DEPARTMENTS	
39.1000		MNF	POLICE DEPARTMENTS	
39.1200		MNF	POLICE DEPARTMENTS	
39.1400		MNF	POLICE DEPARTMENTS	
39.1600		MNF	POLICE DEPARTMENTS	
39.1800	8710	MNF	POLICE DEPARTMENTS	
39.2000		MNF	POLICE DEPARTMENTS	
39.2200		MNF	POLICE DEPARTMENTS	
39.2400		MNF	POLICE DEPARTMENTS	
39.2600		MNF	POLICE DEPARTMENTS	
39.2800		MNF	POLICE DEPARTMENTS	
39.3000		MNF	POLICE DEPARTMENTS	
39.3200		MNF	POLICE DEPARTMENTS	
39.3400		MNF	POLICE DEPARTMENTS	
39.3600		MNF	POLICE DEPARTMENTS	
39.3800		MNF	POLICE DEPARTMENTS	
39.4000	8610	MNF1	POLICE DEPARTMENTS - UNKNOWN USER ID	
39.4200		MNF	POLICE DEPARTMENTS	
39.4400		MNF	POLICE DEPARTMENTS	
39.4600		MNF	POLICE DEPARTMENTS	
39.4800		MNF	POLICE DEPARTMENTS	
39.5000		MNF	POLICE DEPARTMENTS	
39.5200		MNF	POLICE DEPARTMENTS	
39.5400		MNF	POLICE DEPARTMENTS	
39.5600		MNF	POLICE DEPARTMENTS	
39.5800		MNF	POLICE DEPARTMENTS	
39.6000		MNF	POLICE DEPARTMENTS	
39.6200		MNF	POLICE DEPARTMENTS	
39.6400	8610	MNF1	POLICE DEPARTMENTS - UNKNOWN USER ID	
39.6600		MNF	POLICE DEPARTMENTS	
39.6800	8710	MNF	POLICE DEPARTMENTS	
39.7000		MNF	POLICE DEPARTMENTS	
39.7200		MNF	POLICE DEPARTMENTS	
39.7400		MNF	POLICE DEPARTMENTS	
39.7600		MNF	POLICE DEPARTMENTS	
39.7800	8610	MNF1	POLICE DEPARTMENTS - UNKNOWN USER ID	
39.8000		MNF	POLICE DEPARTMENTS	
39.8200		MNF	POLICE DEPARTMENTS	
39.8400		MNF	POLICE DEPARTMENTS	
39.8600	8610	MNF1	POLICE DEPARTMENTS - UNKNOWN USER ID	
39.8800		MNF	POLICE DEPARTMENTS	
39.9000	8705	MNF	POLICE DEPARTMENTS	
39.9200		MNF	POLICE DEPARTMENTS	
39.9400	8705	MNF	POLICE DEPARTMENTS	
39.9600		MNF	POLICE DEPARTMENTS	
39.9800		MNF	SOUTH CAROLINA HIGHWAY PATROL	
42.0200		MNF1	GEORGIA STATE POLICE POST 42	SAVANNAH
42.0200	8704	MNF1	GEORGIA STATE POLICE POST 42	SAVANNAH
42.0400		MNV	STATE POLICE DEPARTMENT	
42.0600		MNV	SOUTH CAROLINA HIGHWAY PATROL (CHANNEL F8 - CAR TO CAR)	
42.0800	8710	MNF1	SOUTH CAROLINA HIGHWAY PATROL (CHANNEL F4)	
42.1000	8710	MNF1V	SOUTH CAROLINA HIGHWAY PATROL (CHANNEL F1 - BASE)	
42.1200	8710	MNF1	SOUTH CAROLINA HIGHWAY PATROL (CHANNEL F3)	
42.1400	8703	MNF1V	SOUTH CAROLINA HIGHWAY PATROL (CHANNEL F5 - BASE)	
42.1600		MNV	STATE POLICE DEPARTMENT	
42.1800		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.2000		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.2200		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.2400		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.2600	8710	MNF1V	SOUTH CAROLINA HIGHWAY PATROL (CHANNEL F2 - MOBILE)	
42.2800		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.3000		MNV	STATE POLICE DEPARTMENT (MOBILE)	

42.3200		MNV	STATE POLICE DEPARTMENT	
42.3400	8710	MNF1V	SOUTH CAROLINA HIGHWAY PATROL (CHANNEL F6 - MOBILE)	
42.3600		MNV	STATE POLICE DEPARTMENT	
42.3800		MNV	STATE POLICE DEPARTMENT	
42.4000		MNV	STATE POLICE DEPARTMENT	
42.4200	8705	MNV	STATE POLICE DEPARTMENT	
42.4400	8705	MNV	STATE POLICE DEPARTMENT	
42.4600	8705	MNV	STATE POLICE DEPARTMENT	
42.4800		MNV	STATE POLICE DEPARTMENT	
42.5000		MNV	STATE POLICE DEPARTMENT	
42.5200	8705	MNV	STATE POLICE DEPARTMENT	
42.5400		MNV	STATE POLICE DEPARTMENT	
42.5600		MNV	STATE POLICE DEPARTMENT	
42.5800		MNV	STATE POLICE DEPARTMENT	
42.6000		MNV	STATE POLICE DEPARTMENT	
42.6200		MNV	STATE POLICE DEPARTMENT	
42.6400		MNV	STATE POLICE DEPARTMENT	
42.6600		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.6800	8705	MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.7000		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.7200		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.7400		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.7600		MNV	STATE POLICE DEPARTMENT (MOBILE)	
42.7800		MNV	STATE POLICE DEPARTMENT	
42.8000		MNV	STATE POLICE DEPARTMENT	
42.8200		MNV	STATE POLICE DEPARTMENT	
42.8400		MNV	STATE POLICE DEPARTMENT	
42.8600		MNV	STATE POLICE DEPARTMENT	
42.8800		MNV	STATE POLICE DEPARTMENT	
42.9000		MNV	STATE POLICE DEPARTMENT	
42.9200		MNV	STATE POLICE DEPARTMENT	
42.9400		MNV	STATE POLICE DEPARTMENT	
44.6200		MNF	STATE POLICE DEPARTMENTS	
44.6600		MNF	STATE POLICE DEPARTMENTS	
44.7000	8610	MNF	STATE POLICE DEPARTMENTS	
44.7400		MNF	STATE POLICE DEPARTMENTS	
44.7800		MNF	STATE POLICE DEPARTMENTS	
44.8200	8705	MNF	STATE POLICE DEPARTMENTS	
44.8600		MNF	STATE POLICE DEPARTMENTS	
44.9000		MNF	STATE POLICE DEPARTMENTS	
44.9400		MNF	STATE POLICE DEPARTMENTS	
44.9800	8610	MNF?	STATE POLICE DEPARTMENTS	
45.0200		MNF	STATE POLICE DEPARTMENTS	
45.0600		MNF	STATE POLICE DEPARTMENTS	
45.1000	8704	MNF1	POLICE DEPARTMENTS	
45.1400		MNF	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
45.1800		MNF	POLICE DEPARTMENTS	
45.2200		MNF	POLICE DEPARTMENTS	
45.2600	8705	MNF	POLICE DEPARTMENTS	
45.3000		MNF	POLICE DEPARTMENTS	
45.3400		MNF	POLICE DEPARTMENTS	
45.3800		MNF	POLICE DEPARTMENTS	
45.4200		MNF	POLICE DEPARTMENTS	
45.4400	8703	MNF1	JASPER COUNTY POLICE	RIDGELAND
45.4600	8710	MNF?	POLICE DEPARTMENTS	
45.5000		MNF	POLICE DEPARTMENTS	
45.5400		MNF	POLICE DEPARTMENTS	
45.5800		MNF	POLICE DEPARTMENTS	
45.6200	8610	MNF?	POLICE DEPARTMENTS	
45.6600	8610	MNF?	POLICE DEPARTMENTS	
45.7000		MNF	POLICE DEPARTMENTS	
45.7000		MNF	JASPER COUNTY POLICE	RIDGELAND
45.7400		MNF	POLICE DEPARTMENTS	
45.7800		MNF	POLICE DEPARTMENTS	
45.8200		MNF	POLICE DEPARTMENTS	
45.8600		MNF	POLICE DEPARTMENTS (INTERSYSTEM)	
45.9000		MNF	POLICE DEPARTMENTS	
45.9400		MNF	POLICE DEPARTMENTS	
45.9800		MNF	POLICE DEPARTMENTS	
46.0200		MNF	POLICE DEPARTMENTS	
153.7400	8703	MNF1V	GEORGIA STATE POLICE COASTAL CORRECTIONAL INSTITUTION	GARDEN CITY
154.0850	8710	MNF1V	GARDEN CITY POLICE/FIRE DEPARTMENT	GARDEN CITY
154.6500	8704	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
154.6500	8704	MN	CHATHAM COUNTY POLICE	SAVANNAH
154.6500		MN	CHATHAM COUNTY POLICE	SAVANNAH
154.6500		MN	CHATHAM COUNTY POLICE	SAVANNAH
154.6500		MN	CHATHAM COUNTY POLICE	SAVANNAH
154.6650		MN	POLICE DEPARTMENTS	
154.6800	8710	MN	GEORGIA BUREAU OF INVESTIGATION - REGION 13	SAVANNAH
154.6950	8703	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS (TACTICAL)	
154.7100	8710	MNF1V	TYBEE ISLAND POLICE DEPARTMENT	TYBEE ISLAND
154.7250		MN	POLICE DEPARTMENTS	
154.7400	8710	MN	TYBEE ISLAND POLICE DEPARTMENT	TYBEE ISLAND
154.7400		MN	CHATHAM COUNTY SHERIFF (CAR TO CAR COMMUNICATIONS)	
154.7400		MN	THUNDERBOLT POLICE DEPARTMENT	THUNDERBOLT
154.7400		MN	THUNDERBOLT POLICE DEPARTMENT	THUNDERBOLT
154.7440		MN	POLICE DEPARTMENTS	
154.7700	8703	MNF1V	THUNDERBOLT CITY POLICE DISPATCH	THUNDERBOLT
154.8000	8703	MNF2V	GEORGIA BUREAU OF INVESTIGATION CHANNEL 2 CAR TO CAR	SAVANNAH
154.8150		MN	POLICE DEPARTMENTS	
154.8300	8703	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
154.8450		MN	POLICE DEPARTMENTS	
154.8600		MN	POLICE DEPARTMENTS	
154.8750		MN	POLICE DEPARTMENTS	
154.8900		MN	POLICE DEPARTMENTS	
154.9050	8710	MNF1V	SAVANNAH CITY POLICE DEPARTMENT - CAR TO CAR	SAVANNAH
154.9050	8710	MNF1V	SAVANNAH CITY POLICE DEPARTMENT - CAR TO CAR	SAVANNAH
154.9050		MNF1V	PORT WENTWORTH POLICE	PORT WENTWORTH
154.9050	8703	MNF1V	TYBEE ISLAND POLICE DEPARTMENT	TYBEE ISLAND
154.9050		MNF1V	THUNDERBOLT CITY POLICE	YHUNDERBOLT
154.9050		MNF1V	GEORGIA STATE POLICE	GARDEN CITY
154.9050	8710	MNF1V	CHATHAM COUNTY POLICE	SAVANNAH
154.9050	8710	MNF1V	CHATHAM COUNTY POLICE	SAVANNAH
154.9050	8710	MNF1V	CHATHAM COUNTY POLICE	SAVANNAH
154.9050	8710	MNF1V	CHATHAM COUNTY POLICE	SAVANNAH
154.9200		MN	POLICE DEPARTMENTS	

154.9350	8710	MNF1V	SAVANNAH CITY POLICE (NET) BASE TO BASE	SAVANNAH
154.9350	8710	MNF1V	SAVANNAH CITY POLICE (NET) BASE TO BASE	SAVANNAH
154.9350		MNF1V	TYBEE ISLAND POLICE	TYBEE ISLAND
154.9350		MNF1V	PORT WENTWORTH POLICE	PORT WENTWORTH
154.9350		MNF1V	THUNDERBOLT CITY POLICE	THUNDERBOLT
154.9350		MNF1V	THUNDERBOLT CITY POLICE	THUNDERBOLT
154.9350		MNF1V	GEORGIA STATE POLICE	GARDEN CITY
154.9350		MNF1V	CHATHAM COUNTY POLICE	SAVANNAH
154.9350		MNF1V	CHATHAM COUNTY POLICE	SAVANNAH
154.9350		MNF1V	CHATHAM COUNTY POLICE	SAVANNAH
154.9500		MN	POLICE DEPARTMENTS (MOBILE)	
155.0100	8703	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
155.0550	8703	MNF1V	PORT WENTWORTH POLICE DEPARTMENT	PORT WENTWORTH
155.0700	8610	MN	COLLETON COUNTY POLICE	
155.0700	8610	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
155.1300	8710	MNF1V	CHATHAM COUNTY POLICE DISPATCH	SAVANNAH
155.1300	8710	MNF1V	CHATHAM COUNTY POLICE DISPATCH	SAVANNAH
155.1300		MNF1V	CHATHAM COUNTY POLICE DISPATCH	SAVANNAH
155.1300		MNF1V	CHATHAM COUNTY POLICE DISPATCH	SAVANNAH
155.1300	8703	MNF1V	TYBEE ISLAND POLICE DEPARTMENT	TYBEE ISLAND
155.1300		MNF1V	PORT WENTWORTH POLICE DEPARTMENT	PORT WENTWORTH
155.1900		MN	POLICE DEPARTMENTS	
155.2500		MN	POLICE DEPARTMENTS	
155.3100		MN	POLICE DEPARTMENTS	
155.3700	8610	MN	POLICE DEPARTMENTS	
155.3700		MN	CHATHAM COUNTY POLICE INTERCITY COORDINATION	SAVANNAH
155.3700		MN	CHATHAM COUNTY POLICE DISPATCH	SAVANNAH
155.3700		MN	CHATHAM COUNTY POLICE DISPATCH	SAVANNAH
155.3700		MN	PORT WENTWORTH POLICE DEPARTMENT	PORT WENTWORTH
155.4150		MN	POLICE DEPARTMENTS	
155.4300	8703	MNF1	POLICE DEPARTMENTS - UNKNOWN USER ID	
155.4450	8703	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
155.4600		MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
155.4750	8703	MN	NATIONWIDE POLICE INTERSYSTEM CHANNEL (USED THROUGHOUT THE UNITED STATES)	
155.4750		MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
155.4750	8703	MN	CHATHAM COUNTY POLICE INTERCITY COORDINATION	SAVANNAH
155.4750		MN	PORT WENTWORTH POLICE DEPARTMENT	PORT WENTWORTH
155.4750		MN	CHATHAM COUNTY POLICE DISPATCH	SAVANNAH
155.4750		MN	CHATHAM COUNTY POLICE DISPATCH	SAVANNAH
155.4900		MN	POLICE DEPARTMENTS	
155.5050		MN	STATE POLICE DEPARTMENTS	
155.5200	8710	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
155.5300	8703	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
155.5500	8703	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS	
155.5650	8710	MN	POLICE DEPARTMENTS	
155.5800	8710	MN	SOUTH CAROLINA LAW ENFORCEMENT - SLED TEAMS (SPECIAL OPERATIONS)	
155.6400	8705	MNF1V	SOUTH CAROLINA DEPARTMENT OF CORRECTIONS (PRISONS) CHANNEL 01	
155.6550		MN	POLICE DEPARTMENTS	
155.6700		MN	POLICE DEPARTMENTS	
155.6850		MN	POLICE DEPARTMENTS	
155.7000	8710	MN	POLICE DEPARTMENTS	
155.7300	8610	MN	POLICE DEPARTMENTS - UNKNOWN USER ID	
155.7900		MN	POLICE DEPARTMENTS	
155.8500	8703	MNF1	POLICE DEPARTMENTS - UNKNOWN USER ID	
155.9100	8703	MN	CHATHAM COUNTY SHERIFF DISPATCH	SAVANNAH
155.9100	8703	MN	CHATHAM COUNTY SHERIFF DISPATCH	SAVANNAH
155.9100	8703	MN	CHATHAM COUNTY SHERIFF DISPATCH	SAVANNAH
155.9550		MN	SOUTH CAROLINA STATE POLICE INTERSYSTEM CHANNEL	
155.9700		MN	POLICE DEPARTMENTS	
156.0300	8703	MN	CHATHAM COUNTY SHERIFF - DETECTIVES	SAVANNAH
156.0300	8703	MN	CHATHAM COUNTY SHERIFF - DETECTIVES	SAVANNAH
156.0900	8710	MN	COLLETON COUNTY POLICE	
156.1500	8710	MN	POLICE DEPARTMENTS - UNKNOWN USER ID	
156.2100		MN	POLICE DEPARTMENTS	
158.7300		MN	POLICE DEPARTMENTS	
158.7900	8705	MN	POLICE DEPARTMENTS	
158.8500	8705	MN	POLICE DEPARTMENTS	
158.8800	8704	MNF1V	GEORGIA STATE POLICE	GARDEN CITY
158.9100		MN	POLICE DEPARTMENTS	
158.9700		MN	POLICE DEPARTMENTS	
159.0300		MN	POLICE DEPARTMENTS	
159.0900		MN	POLICE DEPARTMENTS	
159.1500		MN	POLICE DEPARTMENTS	
159.2100	8705	MN	POLICE DEPARTMENTS	
453.0500		MN2	POLICE DEPARTMENTS	
453.1000		MN2	POLICE DEPARTMENTS	
453.1500		MN2	POLICE DEPARTMENTS	
453.2000		MN2	POLICE DEPARTMENTS	
453.2500		MN2	POLICE DEPARTMENTS	
453.3000		MN2	POLICE DEPARTMENTS	
453.3500		MN2	POLICE DEPARTMENTS	
453.4000		MN2	POLICE DEPARTMENTS	
453.4500		MN2	POLICE DEPARTMENTS	
453.5000		MN2	POLICE DEPARTMENTS	
453.5500		MN2	POLICE DEPARTMENTS	
453.6000		MN2	POLICE DEPARTMENTS	
453.6500		MN2	POLICE DEPARTMENTS	
453.7000		MN2	POLICE DEPARTMENTS	
453.7500		MN2	POLICE DEPARTMENTS	
453.8000		MN2	POLICE DEPARTMENTS	
453.8500		MN2	POLICE DEPARTMENTS	
453.9000		MN2	POLICE DEPARTMENTS	
453.9500		MN2	POLICE DEPARTMENTS	
458.0500		MN2	POLICE DEPARTMENTS	
458.1000		MN2	POLICE DEPARTMENTS	
458.1500		MN2	POLICE DEPARTMENTS	
458.2000		MN2	POLICE DEPARTMENTS	
458.2500		MN2	POLICE DEPARTMENTS	
458.3000		MN2	POLICE DEPARTMENTS	
458.3500		MN2	POLICE DEPARTMENTS	
458.4000		MN2	POLICE DEPARTMENTS	
458.4500		MN2	POLICE DEPARTMENTS	
458.5000		MN2	POLICE DEPARTMENTS	
458.5500		MN2	POLICE DEPARTMENTS	
458.6000		MN2	POLICE DEPARTMENTS	
458.6500		MN2	POLICE DEPARTMENTS	

458.7000		MN2	POLICE DEPARTMENTS	
458.7500		MN2	POLICE DEPARTMENTS	
458.8000		MN2	POLICE DEPARTMENTS	
458.8500		MN2	POLICE DEPARTMENTS	
458.9000		MN2	POLICE DEPARTMENTS	
458.9500		MN2	POLICE DEPARTMENTS	
460.0250	8710	MNF1V	SAVANNAH CITY POLICE (CHANNEL F1 - DISPATCH)	SAVANNAH
460.0500		MN2	SOUTH CAROLINA HIGHWAY PATROL REPEATERS	
460.0750	8710	MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
460.0750		MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
460.0750		MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
460.0750		MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
460.0750		MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
460.0750		MNF1	YEMASSEE POLICE DEPARTMENT	YEMASSEE
460.1000		MN2	POLICE DEPARTMENTS	
460.1250	8704	MN2	POLICE DEPARTMENTS	
460.1500	8710	MNF1V	HARDEEVILLE POLICE DEPARTMENT	HARDEEVILLE
460.1500		MNF1V	JASPER COUNTY SHERIFF	RIDGELAND
460.1500		MNF1V	JASPER COUNTY SHERIFF	RIDGELAND
460.1500		MNF1V	JASPER COUNTY SHERIFF	RIDGELAND
460.1750	8704	MN2	POLICE DEPARTMENTS	
460.2000	8710	MNF1	SAVANNAH CITY POLICE (CHANNEL F2 - DETECTIVES)	SAVANNAH
460.2250	8710	MNF1	BEAUFORT POLICE DEPARTMENT	BEAUFORT
460.2250	8710	MNF1	BEAUFORT POLICE DEPARTMENT	BEAUFORT
460.2250		MNF1	PORT ROYAL POLICE DEPARTMENT	PORT ROYAL
460.2250		MNF1	BLUFFTON POLICE DEPARTMENT	BLUFFTON
460.2500	8710	MNF	SOUTH CAROLINA HIGHWAY PATROL REPEATERS	
460.2750	8704	MNF1	BEAUFORT COUNTY SHERIFF (CHANNEL 02)	BEAUFORT
460.2750		MNF1	HARDEEVILLE POLICE DEPARTMENT	HARDEEVILLE
460.2750		MNF1	HAMPTON COUNTY POLICE	HAMPTON
460.2750		MNF1	HAMPTON COUNTY POLICE	HAMPTON
460.2750		MNF1	SOUTH CAROLINA HIGHWAY PATROL REPEATER	BEAUFORT
460.2750		MNF1	PORT ROYAL POLICE DEPARTMENT	PORT ROYAL
460.2750		MNF1	BLUFFTON POLICE DEPARTMENT	BLUFFTON
460.2750		MNF1	YEMASSEE POLICE DEPARTMENT	YEMASSEE
460.2750		MNF1	JASPER COUNTY SHERIFF	RIDGELAND
460.2750		MNF1	JASPER COUNTY SHERIFF	RIDGELAND
460.3000	8710	MNF1V	BEAUFORT COUNTY SHERIFF REPEATER (CHANNEL 01)	BEAUFORT
460.3000		MNF1V	BEAUFORT COUNTY SHERIFF REPEATER (CHANNEL 01)	BEAUFORT
460.3000		MNF1V	BEAUFORT COUNTY SHERIFF REPEATER (CHANNEL 01)	BEAUFORT
460.3000	8710	MNF1V	PORT ROYAL POLICE DEPARTMENT	PORT ROYAL
460.3250	8710	MNF1	SAVANNAH CITY POLICE (CHANNEL F3 - TACTICAL)	SAVANNAH
460.3500	8710	MNF2	COLLETON COUNTY (WALTERBORO) POLICE	WALTERBORO
460.3750		MN2	POLICE DEPARTMENTS	
460.4000	8710	MNF1V	SAVANNAH CITY POLICE (CHANNEL F4 - INFORMATION)	SAVANNAH
460.4250		MN2	POLICE DEPARTMENTS	
460.4500	8710	MNF2	COLLETON COUNTY (WALTERBORO) POLICE	WALTERBORO
460.4750	8710	MNF1	SAVANNAH CITY POLICE (CHANNEL F5 - ADMINISTRATION)	SAVANNAH
460.5000		MNF2	CHATHAM COUNTY SHERIFF DETECTIVES	SAVANNAH
460.5000		MNF	SAVANNAH CITY POLICE	SAVANNAH
460.5250		MN2	POLICE DEPARTMENTS	
460.5500		MN2	POLICE DEPARTMENTS	
465.0250	8703	MNF1V	SAVANNAH CITY POLICE (CHANNEL F1 - DISPATCH)	SAVANNAH
465.0500		MN2	POLICE DEPARTMENTS	
465.0750		MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
465.0750		MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
465.0750		MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
465.0750		MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
465.0750		MNF1	HAMPTON COUNTY POLICE DEPARTMENT	HAMPTON
465.0750		MNF1	YEMASSEE POLICE DEPARTMENT	YEMASSEE
465.1000		MN2	POLICE DEPARTMENTS	
465.1250		MN2	POLICE DEPARTMENTS	
465.1500	8703	MNF1V	HARDEEVILLE POLICE DEPARTMENT	HARDEEVILLE
465.1500		MNF1V	JASPER COUNTY SHERIFF	RIDGELAND
465.1500		MNF1V	JASPER COUNTY SHERIFF	RIDGELAND
465.1500		MNF1V	JASPER COUNTY SHERIFF	RIDGELAND
465.1750	8704	MN2	POLICE DEPARTMENTS	
465.2000		MNF1	SAVANNAH CITY POLICE (CHANNEL F2 - DETECTIVES)	SAVANNAH
465.2250	8703	MNF1	BEAUFORT POLICE DEPARTMENT	BEAUFORT
465.2250		MNF1	BEAUFORT POLICE DEPARTMENT	BEAUFORT
465.2250		MNF1	PORT ROYAL POLICE DEPARTMENT	PORT ROYAL
465.2250		MNF1	BLUFFTON POLICE DEPARTMENT	BLUFFTON
465.2500	8610	MNF	SOUTH CAROLINA HIGHWAY PATROL REPEATERS	
465.2750	8610	MNF1	BEAUFORT COUNTY SHERIFF	BEAUFORT
465.2750		MNF1	HARDEEVILLE POLICE DEPARTMENT	HARDEEVILLE
465.2750		MNF1	HAMPTON COUNTY POLICE	HAMPTON
465.2750		MNF1	HAMPTON COUNTY POLICE	HAMPTON
465.2750		MNF1	SOUTH CAROLINA HWY PATROL REPEATER	BEAUFORT
465.2750		MNF1	PORT ROYAL POLICE DEPARTMENT	PORT ROYAL
465.2750		MNF1	BLUFFTON POLICE DEPARTMENT	BLUFFTON
465.2750		MNF1	YEMASSEE POLICE DEPARTMENT	YEMASSEE
465.2750		MNF1	JASPER COUNTY SHERIFF	RIDGELAND
465.2750		MNF1	JASPER COUNTY SHERIFF	RIDGELAND
465.3000	8710	MNF1V	BEAUFORT COUNTY SHERIFF REPEATER	BEAUFORT
465.3000		MNF1V	BEAUFORT COUNTY SHERIFF REPEATER	BEAUFORT
465.3000		MNF1V	BEAUFORT COUNTY SHERIFF REPEATER	BEAUFORT
465.3000		MNF1V	PORT ROYAL POLICE DEPARTMENT	PORT ROYAL
465.3250	8703	MNF1	SAVANNAH CITY POLICE (CHANNEL F3 - TACTICAL)	SAVANNAH
465.3500		MNF2	COLLETON COUNTY (WALTERBORO) POLICE	WALTERBORO
465.3750		MN2	POLICE DEPARTMENTS	
465.4000		MNF1V	SAVANNAH CITY POLICE (CHANNEL F4 - INFORMATION)	SAVANNAH
465.4250		MN2	POLICE DEPARTMENTS	
465.4500		MNF2	COLLETON COUNTY (WALTERBORO) POLICE	WALTERBORO
465.4750		MNF1	SAVANNAH CITY POLICE (CHANNEL F5 - ADMINISTRATION)	SAVANNAH
465.5000		MNF2	CHATHAM COUNTY SHERIFF DETECTIVES	SAVANNAH
465.5000		MNF	SAVANNAH CITY POLICE	SAVANNAH
465.5250		MN2	POLICE DEPARTMENTS	
465.5500		MN2	POLICE DEPARTMENTS	
10.5250		GN	X-BAND POLICE TRAFFIC RADAR	
24.1500		GN	K-BAND POLICE TRAFFIC RADAR	

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming to:

George N. Hoggatt, 17473 E. 16th Dr, Aurora, CO 80011

COLORADO Joyce CO-032

The long awaited South Metro Fire District joint dispatch center did start operation on January 1, 1988 (this is being written Jan. 4) but is a disappointment. Only the Littleton and Castlewood Fire Protection Districts have merged their dispatch centers. Dispatch is on Littleton's frequency of 154.340. There have been references to channel 2 and 3. The frequencies are not known. Can anyone help? They may be FERN 1 (154.265) and FERN3 (154.295).

Castlewood's old frequency is in use but not by Castlewood as best as we can tell. The Lifeguard Helicopters have been heard on it.

During the Christmas "near" blizzard, Colorado State Patrol cars were using the old Aurora District mobile frequency (154.740) as a car to car channel at the road closure road blocks.

UTAH Brian CA-SD-014

46.060	Salt Lake County Fire Dispatch
154.340	Salt Lake County Fire
154.235	Salt Lake County Fire Mutual Aid
154.430	Salt Lake City FD F-1
154.310	Salt Lake City FD F-2
453.200R	Salt Lake City FD
154.385	Sandy FD
460.625R	West Valley City FD F-1
460.600R	West Valley City FD F-2
154.175	Murray FD
453.800R	South Salt Lake FD
153.740	South Jordan FD
154.355	West Jordan FD
154.265	Utah State Fire Marshall
153.770	Midvale FD
155.865	Draper FD
154.415	Riverton FD
154.220	Park City FD
155.580	Utah Highway Patrol
155.505	UHP Statewide
155.745	UHP Car to Car
151.145R	Utah Forestry
151.280R	Utah Forestry
151.370R	Utah Forestry
141.415R	Utah Forestry statewide
155.775	Utah Forestry car to car
154.650	Salt Lake County Sheriff East
154.785	Salt Lake County Sheriff Central
155.370	Salt Lake County Sheriff West

460.100R Salt Lake City PD East
460.150R Salt Lake City PD Central
460.200R Salt Lake City PD West
460.300R Salt Lake City PD information
460.375R Salt Lake City PD tactical
460.050R Salt Lake City PD detectives and TAC-2

WASHINGTON C. E. WA-037

Two new frequencies for the Spokane Fire Department. Channel 1 154.430 base and mobile - dispatch and fire scene. Channel 2 154.130 fire scene. Channel 3 154.160 fire scene. There seems to be no pattern as to when channel 2 or channel 3 is used.

C. E. also sent along a clipping from The Spokesman-Review Spokane Chronicle about scanners and scanner users. It seems that the Spokane Police Department and Sheriff's Department have mixed emotions about scanners. Most citizens and media people are not a problem, but more and more "bad guys" are using scanners. The Spokane Police Department does do some scrambling for selected operations. One reporter learned the hard way to work with the police. It seems that she heard a call on the scanner and went to the scene. When she got out of her car, she was between the police and two men barricaded in a house. She left quickly.

PUBLIC SAFETY—CALIFORNIA

Editor: Dan Figueroa, CA-LA-359,
P.O. Box 7181, Capistrano Beach, CA 92624

First list of frequencies is for the Pasadena Rose Parade to cover what was left out of the Jan. 1980 column.
Then a list covering the 400 to 410 MHz activity in southern California.
Next is an outstanding list of freqs. for the SantA Barbara area.

ROSE PARADE FREQS.

506.4625	Pasadena PD
506.6875	" "
154.92	CLEMARS
158.82	Pasadena Local Gov't.
453.95	Pasadena Public Works
153.65	Pasadena Water & Power
158.235	" " "
155.955	Pasadena Tac. Comm.
153.89	Pasadena Fire Tac 1
154.2035	" " Tac 2
153.77	" " Tac 3
154.28	" " Tac 4
153.845	Pasadena Paramedics
154.935	NELMAR
155.95	Rose Bowl C. P.
154.515	Rose Parade Local Gov't.
157.47	Ward's Towing
152.87	Rose Bowl Staff
152.96	" " "
470.6875	LASO
470.9375	LASO
470.8875	LASO
470.9125	LASO
470.8625	LASO
470.7625	LASO
39.32	LASO
39.72	LASO
39.48	LASO
39.60	LASO
46.10	Pasadena Fire Dispatch
42.34	CHP
42.18	CHP

403.500 Unknown 7-tone sequence, poss. satellite
406.125 Formerly KAG88, now digitally encrypted
406.175 Link with idle tone
406.225 USPS Pasadena
406.325 VA Hospitals (input 409.325)
407.375 Norton AFB Commander's net (input 413.125)
407.425 ? (input 412.850)
407.475 March AFB Navaids maintenance (repeater?)
407.550 ? "BW2 this is BW4" , "at the old weather station"
407.600 weak mobile activity, repeater input?
407.725 USPS (input to 415.05)
407.775 poss. input to USPS 414.750
407.850 Crown Radio phone patches to AF-1
408.050 poss. USPS repeater input
408.375 bootleg fishing ops. airplane spotter
408.625 BLM Link, Box Springs to Onyx (return link 415.075)
408.675 poss. Fish and Wildlife (410.625 out?)
408.775 BLM? KMC460
409.025 Voice activity, unknown users
409.325 VA Hospitals (input to 406.325) KLB815 KRM569
409.625 US State Dept with autopatch (poss. input 407.200)

From **CASR-009:**

Santa Barbara and Regional Frequencies

460.025 **CLEMARS** (statewide mutual aid) (Calif. Law Enforcement Mutual Radio Sys.)
154.920 (statewide mutual aid)
158.790 **CLERS**(L.A. ; Orange Cos.) (Cal. Law Enfor. Radio Sys.)Intersystem
453.675 (Ventura, San Luis Obispo and San Diego Cos.)
155.475 **NLEMARS** (national version of CLEMARS)

154.830 **L. A. P. D.** (tac 1)
507.0875 (emergency)
39.360 **L. A. S. O.** (Adam)
153.920 **Orange Co.** (emergencies)
460.025 (emergencies)
153.995 **San Diego Co.** (emergencies)
453.100 (S. D. S. O.)
155.085 (Fire)
460.050 **Santa Barbara and San Luis Obispo Cos.** (emergencies)

154.680 **Cal. Dept. of Justice**
154.665
460.375 **Cal. State Police** (Southern Ca. and Sacramento)
460.450 (Central Ca.)
453.825 (Northern Ca.)
151.430 **Cal. Dept. of Fish and Game**

42.340b **Calif. Highway Patrol** (statewide)
42.180m (b=base) (m=moble)
154.905 (moble extender)
42.560b San Luis Obispo (28), Templeton (9), Buellton (3), Santa Maria (14)
42.720m (S.L.O. disp.)
42.540b Santa Barbara (29) (Ventura disp.)
42.240m
42.400b Ventura (31)
42.160m
42.440b Malibu (109), West L. A. (79) (L. A. Communications Center, LACC)
42.760m
42.500b West San Fernando Valley (56), Glendale (93) (LACC)
42.820m Bakersfield (69) (Bakersfield disp. in Kern Co.)
42.420 Newhall (78), Tejon (102) (LACC)
42.840
460.250 **Cal. State Poly. Univ., San Luis Obispo**

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Air Force Army Navy
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send check or money order
to
Mobile Radio Resources
2661 Carol Drive
San Jose CA 95125

PAID ADVERTISING

155.445 **U. C. Santa Barbara**
155.505
155.475
154.920
462.625

153.755 **Cal. OES, Dept. of Comm., Corrections, State Hospitals and Gov.**
Camarillo State Hospital (not Santa Barbara Co.)
39.100 Camarillo State Hospital
Ventura School (Calif. Youth Authority)
39.040 Ventura School
154.980 Paso Robles School (CYA)

154.160 **Calif. Office of Emergency Services** "OES 1"
154.220 "OES 2"
154.280 **Fire Mutual Aid** (statewide)
154.295 (statewide)
154.265 (statewide)
151.355 **Calif. Div. of Forestry** (statewide)
151.220 (hand-helds, statewide)
151.280 (Blue Air Net)
151.310 (Yellow Air Net)
151.265 (Region 3)
151.325 (S.L.O.)

- Fire Depts. -

154.205 Fillmore Fire
158.940 Grover City Fire
33.820 Los Angeles City (San Fernando Valley)
506.9125
154.400 Los Angeles Co. Fire North Co. ("Antelope" dispatch)
470.5375

154.430 Lompoc Fire
154.130 Los Osos, Morro Bay FDs
154.370 Oxnard, Santa Paula, Ventura City, Atascadero FDs
154.145 Oxnard, Pismo Beach FDs
155.940 Paso Robles Fire
154.310 San Luis Obispo City Fire
155.145
154.205
154.385 San Luis Obispo County Fire
154.445 Santa Barbara City, Santa Maria Fire Depts.
154.190 S. B. City, Montecito, Carpinteria, Orcutt Fds.
153.770 Santa Barbara County Fire
153.905
153.980
155.100 Santa Maria Fire
154.010 Ventura City and Co., Arroyo Grande FDs
154.325

44.720 **Calif. Dept. of Parks, Beaches and Rec.**
44.800
44.880 Carpinteria, El Capitan, Emma Wood, Gaviota, McGrath, Refugio, San Buenaventura State Beaches
El Presidio State Historical Site, Santa Barbara
La Purisima Mission, Lompoc
Point Mugu State Park
44.640 San Luis Obispo Co.
(800mHz also)

158.805 San Luis Obispo Co. Civil Defense
45.080 Santa Barbara Co. Civil Defense

462.975 **Santa Barbara County Paramedic Dispatch** (mobiles are 5. higher)
155.205 **Ventura Co. Paramedic Dispatch**
463.050 Cottage Hospital (Santa Barbara)
463.000 Goleta Valley Community Hospital
463.100 St. Francis Hospital (Santa Barbara)
155.355 Ventura Co. General Hospital
155.340 Interhospital Emergency

155.235 Lompoc **Search and Rescue**
155.160 Lompoc and Los Padres Search and Rescue
155.220 Los Padres Search and Rescue

47.420 **American Red Cross**

146.790 Santa Barbara **Amateur Radio** (Becomes **ARES** net during emergencies; the **Red Cross** has been heard on this freq. during certain emergencies.)
147.945
147.000
146.880
145.180
146.550
146.520
449.000

462.675 **REACT**

27.065 **Citizen Band Channel 9** (emergency)

- Police and Sheriff Depts. -

460.425	Atascadero PD.
460.175	Carpinteria, Arroyo Grande, Grover City PDs
158.835	Fillmore PD
159.105	
460.450	Guadalupe PD
460.125	Lompoc, Paso Robles PDs
506.8875	Los Angeles PD (West Valley, Devonshire)
506.7125	Los Angeles PD (Van Nuys, Valley Traffic Division)
507.1625	Los Angeles PD (Foothill, No. Hollywood)
39.080	Los Angeles SO (Santa Clarita, Antelope Valley) - base
39.700	(Malibu) - base
155.655	Oxnard PD
155.745	
460.375	San Luis Obispo PD
460.150	San Luis Obispo SO
460.475	
453.950	Santa Barbara Airport Patrol (City)
461.250	Santa Barbara City College Security
453.325	Santa Barbara Co. Jail
156.600	Santa Barbara Harbor Patrol
156.675	
453.050	Santa Barbara Harbor Patrol and Waterfront
461.225	Santa Barbara School and High School Security
460.100	Santa Barbara, Santa Maria, Morro Bay PDs
460.400	Santa Barbara PD
460.275	Santa Barbara SO
460.325	
158.835	Santa Paula PD
158.805	Simi Valley PD
158.835	
155.310	Ventura PD
155.625	
159.210	Ventura SO
158.730	
156.150	
156.015	

- So. California Law Enfor. Aircraft -

122.750
123.025
123.050
123.075
123.175

RAILROADS

Gary L. Sturm and
Bill Farmer, Editors

Send information about railroad frequencies and their uses, railroad system details, and related questions to:

Bill Farmer, P.O. Box 1838, Thousand Oaks, CA 91360

This column received a lot of good contributions from our readers during 1987, but as this is written, during the holiday season, the mailbox has been empty lately. By the time you receive this issue of the Newsletter, the holidays will be long gone, so if you have any information on railroad radio to send us, please take a moment to jot it down and send it along right away. The hopper is empty!

We'd like to correct a typographical error in last month's column: The frequency for Steamtown in Scranton, PA, is 161.505, not 160.500.

Recent reports indicate that Santa Fe is still using 161.550 (SP Road channel) between Chillicothe, IL and Ft. Madison, IA, instead of its usual 160.650 road channel. Santa Fe swapped 161.310 to Chicago & Illinois Midland Railway (located at Springfield, IL) in order to get 161.550. C&IM is not presently using 161.310.

Santa Fe Southern Pacific Corp. announced on December 28 that it had agreed to sell the entire Southern Pacific Transportation Company to Rio Grande Industries for $1.8 billion. The deal is subject to ICC approval.

Jim Sokol (CA-SF-030) sent a newspaper clipping describing the inaugural run of the Kalamazoo, Lake Shore & Chicago Railway, which took place November 7, 1987. The KLS&C runs between Hartford and Paw

Paw, MI, and revives the name of the original railroad from the early 1900s. It began freight service last September and plans to add a dinner train sometime this year. Does anyone know their frequency?

In our September column, Sid Elliott (CANA-109) asked who is using 460.0875 in Vancouver, BC. Mark Landgraf (NY-336) thinks it might be Neptune Terminals. Mark also says that this frequency is used by CN in some areas; CN channel 512 is 460.0875/465.0875.

Michigan Central is a new short line subsidiary of Detroit & Mackinac headquartered in Tawas City, MI. It took over about 200 miles of lines from Grand Trunk Western. They run from Durand to Saginaw/Bay City and from Durand to Muskegon/Grand Rapids. The railroad is using 161.280 for general operations and is authorized to use Detroit & Mackinac's frequency of 161.310 in Bay City.

CP RAIL

by GARY L. STURM (IN-045), MARK J. LANDGRAF (NY-336) and BILL FARMER (CA-VE-010)

We continue with the listing we began in last month's column. A key to the frequencies appeared last month.

Eastern Region: Schreiber Division

Nemegos & White River Subdivisions:

Dispatcher:	Ch 3	Radio locations:	Biscotasing, Chapleau,
Road:	Ch 4		Dalton, Franz,
MofW:	Ch 13		Girdwood, Gutelius,
Utility:	Ch 14		Nicholson, O'Brien,
			Stralak, Sultan

Heron Bay & Nipigon Subdivisions:

Dispatcher:	Ch 3	Radio locations:	Bamoose, Gurney,
Road:	Ch 4		Horn
MofW:	Ch 11		MacKenzie
Utility:	Ch 15		Struthers

Manitouwadge Subdivision:

Dispatcher:	Ch 3	Radio locations:	Manitouwadge
Road:	Ch 4		
MofW:	Ch 11		
Utility:	Ch 15		

Prairie Region: Lakehead Division

Lac Du Bonnet, Keewatin, & Kainistiquai Subdivisions:

Dispatcher:	Ch 2
Road:	Ch 1
MofW:	Ch 14
Utility:	

Ignace Subdivision:

Dispatcher:	Ch 3
Road:	Ch 1
MofW:	Ch 14
Utility:	

Prairie Region: Winnipeg Division

Dispatcher:	Ch 5
Road:	Ch 5
MofW:	Ch 5 & 6
Div. HQ:	Ch 6 & 13

Prairie Region: Brandon Division

Minnedosa, Bredenbury, Russel, Arcola & Estevan Subdivisions:

Dispatcher:	Ch 4	MofW:	Ch 2 & 4
Road:	Ch 4	Div. HQ:	Ch 2, 3, & 4

La Riviere, Gretna, Napinka, & Lylton Subdivisions:

Dispatcher: Ch 5
Road: Ch 5
MofW: Ch 2 & 5
Div. HQ: Ch 2 & 13
Yard: Ch 1 (Winnipeg Yard)

Carberry Subdivision:

Dispatcher: Ch 3
Road: Ch 1
MofW: Ch 14
Div. HQ: Ch 14

Prairie Region: Moose Jaw & Saskatoon Divisions

Wilkie & Hardisty Subdivisions:

Dispatcher: Ch 4
Road: Ch 4
MofW: Ch 2 & 4
Utility: None

Sutherland, Colonsay, Lanigan & Wynyard Subdivisions:

Dispatcher: Ch 1
Road: Ch 1
MofW: Ch 1 & 3
Utility: None

Pacific Region: Calgary Division

(Note: Alberta North Division became part of Calgary Division 9/7/87)

Red Deer, Leduc, Willingdon, Breton & Hoadley Subdivisions:

Dispatcher: Ch 2
Road: Ch 1
MofW: Ch 1, 3, & 13
Utility: Ch 14
Radio locations: Balzac, Carstairs, Innisfail, Blackfalds, Hobbema, Leduc, Edmonton

Wetaskiwin, Lacombe & Laggan Subdivisions:

Dispatcher: Ch 3
Road: Ch 1
MofW: Ch 1, 3, & 13
Utility: Ch 14
Radio locations: Keith, Cochrane, Radnor, Canmore, Castle Mtn., Stephen

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Pacific Region: Alberta South Division

Dispatcher: Ch 2
Road: Ch 1
MofW: Ch 1, 3, & 13
Utility: Ch 14
Radio locations: Blairmore, Pincher, Monarch, Taber, Winnifred, Vulcan, New Dayton, Milk River, Dewinton

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Pacific Region: Revelstoke Division

(Note: Kootenay Division became part of Revelstoke Division 9/7/87)

Mountain Subdivision:

Dispatcher: Ch 2
Road: Ch 1
MofW:
Utility: None
Yard: Ch 4 (Revelstoke)
Radio locations: Field, Golden, Revelstoke

Okanagan Subdivision:

Dispatcher: Ch 3
Road: Ch 4
MofW:
Utility: None
Radio locations: Kelowna, Vernon

Shuswap Subdivision:

Dispatcher:	Ch 3	Radio locations:	Revelstoke
Road:	Ch 5		Kamloops
MofW:			
Utility:	None		
Yard:	Ch 4		

Cranbrook Subdivision:

Dispatcher:	Ch 8	Radio locations:	Cranbrook
Road:	Ch 4		Sparwood
MofW:	Ch 16		Fort Steele
Utility:	Ch 17 (Fort Steele & Sparwood)		Elko
Utility:	Ch 15 (Elko)		

Fording River Subdivision:

Dispatcher:	Ch 8	Radio locations:	Sparwood
Road:	Ch 4		Clode
MofW:	Ch 16		
Utility:	Ch 15 (Clode)		

Windermere Subdivision:

Dispatcher:	Ch 6	Radio locations:	Golden
Road:	Ch 4		
MofW:			
Utility:	Ch 18 (Windermere)		
Utility:	Ch 20 (Parson & Skookumchuck)		

Kimberley Subdivision:

Dispatcher:	Ch 3	Radio locations:	Cranbrook
Road:	Ch 4		
MofW:			
Utility:	None		

Nelson, Kingsgate, Boundary, Slocan, Kaslo, & Rossland Subdivisions:

Dispatcher:	Ch 3	Radio locations:	Cranbrook
Road:	Ch 1		Nelson
MofW:	Ch 13		Eastport, ID
Utility:	None		Trail

That's all we have space for this time—we'll continue with this listing next month.

—Gary & Bill

TECHNICAL TOPICS

Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions, to:

A LOW COST PANADAPTOR FOR THE R-7000

by Bob Parnass, AJ9S
RCMA IL-267, AOSC IL-41-581

A panadaptor, or spectrum display, is a device which portrays visually the signals in a part of the radio spectrum. Panadaptors allow radio listeners to "see" activity on a portion of band without requiring the listener to tune the receiver.

They are useful for detecting the presence of spread spectrum signals or "hidden" signals riding on a subcarrier of a main channel. Panadaptors are invaluable for detecting spurious emissions from transmitters, and unwanted products caused when 2 or more signals mix.

Panadaptors most often employ a cathode ray tube (CRT) for the display, and must be connected to the intermediate frequency (IF) amplifier stage of a receiver, at a point before filtering takes place.

The ICOM R-7000 2-2000 MHz receiver rear panel has a phono jack for wide band 10.7 MHz IF output. A DC voltage is also present at this connector and is used to power an ICOM TV accessory.

I've seen mention of 3 panadaptors for the R7000:

1. John Biro's article, in **Monitoring Times**, on retuning a Yaesu YO901 Multiscope panadaptor for 10.7 MHz, restricted bandwidth use. Selectable bandwidths of 20, 100, or 200 KHz are available.
2. The Sherwood Communications SCA-7000 signal monitor, priced at $1600, and reviewed in May 1987 "Monitoring Times".[1] Bandwidth adjustable from 1 KHz - 1 MHz.
3. The Spectra-Display, priced at $350, which requires use of an external scope.[2] Bandwidth adjustable from 200 KHz - 10 MHz. Optional preamplifier required for 12 MHz wide sweep.

In the past month, several Kenwood SM-220 monitor scope/panadaptors have appeared at hamfests selling in the $200 to $250 range. The Kenwood SM-220 can display transmitted or received signals. To add spectral display capability to the SM-220, one must purchase the optional BS-5 or BS-8 module, which consist of a printed circuit board, a steel enclosure, interconnecting cables, and a new graticule. The panadaptor module mounts inside the SM-220 cabinet.

The BS-5 is used with the TS520 and TS530 transceivers, which have an IF of 3.395 MHz. The BS-8 is used with the TS820 and TS830 transceivers, which have an IF of 8.830 MHz. Since the IF of the ICOM R7000 is 10.7 MHz, one must alter the panadaptor circuitry to accept 10.7 MHz input.

If you have any choice in the matter, get the BS-8, as it requires fewer changes than the BS-5, and may even require no changes at all!

The panadaptor module circuit consists of several stages, but only two are directly related to the IF frequency:

1. A crystal oscillator is used as a marker generator.
2. A voltage tuned oscillator is swept across the IF of the receiver, and employs a varicap diode, an inductor and capacitors.

The marker generator is not vital for panadaptor operation. It merely provides a single "pip" that one may use to center the display on the CRT screen, and is similar in purpose to the crystal calibrator in older receivers.

The marker generator circuits in the BS-5 and BS-8 are identical except for one crystal. One need only replace the 3.395 MHz crystal (in the BS-5), or 8.830 MHz crystal (in the BS-8) with a 10.7 MHz crystal to adapt the SM-220 marker to 10.7 MHz IF. I did not alter this stage, although I would if I had a 10.7 MHz crystal handy.

The voltage tuned oscillator is the stage that deserves our attention. The changes required depend on whether you have the BS-5 or BS-8 panadaptor module.

Changes for BS-5 Module

Change the following capacitors:

1. C231 from 1000 pf to 68 pf.
2. C232 from .01 uf to 1000 pf. (You can use the capacitor which used to be C231.)
3. C234 from 100 pf to 22 pf.
4. C236 from 47 pf to 22 pf.
5. C237 from 680 pf to 100 pf. (You can use the capacitor which used to be C234.)

Solder a 10 microhenry inductor in parallel with L204, a 20 microhenry inductor.

Changes for BS-8 Module

I haven't tried the BS-8 module, but encourage you to try using it as is, without modification unless necessary.

These steps are needed only if you cannot find settings of the side mounted aligment controls that get the display to behave as specified in the owner's manual:

1. Remove C233, the 33 pf disc capacitor, from the printed circuit board.
2. Replace coil L204, the 4.7 microhenry inductor, with a 6 or 7 microhenry inductor.

Alignment

Follow the alignment procedure in the SM-220 owner's manual to adjust the panadaptor. This consists of adjusting 2 potentiometers and 1 trimmer capacitor through holes thoughtfully provided in the side of the cabinet.

The alignment instructions rely on the use of the internal Marker Generator to generate a signal at the center of the passband. If you haven't converted the Marker Generator circuit, you can tune your receiver to a fre-

---

1. Sherwood Communications, 1310 Industrial Highway, Southampton, PA 19866. tel (215)357-9056.
2. Spectra-Display is sold by GTI Electronics, RD 1 Box 272, Lehighton, PA 18235. tel (717)386-4032.

quency with a signal present at a known frequency (like 162.550 MHz - the National Weather Service), and use that as a frequency standard.

Most of the time spent in aligment will be in alternate adjustments between the trimmer capacitor and the wide band sweep potentiometer, which interact with each other.

Wider Bandwidth

The SCAN WIDTH switch on the stock SM-220 can be set to display a 40 KHz or a 200 KHz wide picture. I adjusted my modified SM-220 to display a 100 KHz or a 500 KHz wide picture. By adjusting the controls on the side of the SM-220, wider bandwidths are possible, but wider bandwidths make it more difficult to resolve individual signals close to each other in frequency. As the bandwidth gets wider, the horizontal sweep loses linearity, causing the graticule calibration lines to be inaccurate.

Connection to R-7000

As mentioned earlier, a DC voltage is present at the R-7000 IF output connector and is used to power an ICOM TV accessory. A direct connection between the R-7000 IF output connector and SM-220 would damage at least one of these units.

To block the DC voltage, a 0.1 microfarad capacitor was soldered inside the R-7000, between the IF output jack and the adjacent jack labeled "spare". Connection between the R-7000 and SM-220 is then made using a short length of RG-58/U coaxial cable, with one end plugged into the R-7000 "spare" jack, and the other end plugged into the rear of the SM-220.

This leaves the original IF output jack undisturbed so it can be used with the TV adaptor accessory.

Vertical Sensitivity

When I connected my modified SM-220 to my R7000, the SM-220 would display only the strongest of signals. To improve the display sensitivity, I inserted a 20 dB gain RF amplifier between the R7000 and SM-220. The amplifier was a spare Ameco PLF2 FET receiver preamp, adjusted for 10.7 MHz, but other amplifiers can be used, provided they have at least a 500 KHz bandwidth, and sufficient gain, at 10.7 MHz.

False Readings - Images

The SM-220 circuit is like a superheterodyne receiver. The panadaptor itself has a 455 KHz IF, and like other superheterodyne receivers with a low IF frequency, is prone to images.

An image is manifested as a false pip, which moves across the screen as the receiver is tuned, and is 910 KHz (twice the IF) away from the actual signal.

The images discussed here are in the SM-220, not in the receiver. Images are bothersome on the strongest signals, like those 300 watt paging transmitters that saturate the county with RF, belching out out strange digital noises or voices (now illegal to monitor).

Use With Other Receivers

The modified SM-220 can be used with other receivers having a 10.7 MHz IF. In other receivers, one would need to find the proper point in the IF stage (before filtering takes place), install a connector, then wire a DC blocking capacitor between the IF stage and connector.

VHF MARINE

Send information, articles, frequencies and their use, and questions that relate to private, commerical, and Coast Guard VHF maritime and inland waterways radio communications to:

Emmett L. Baxter, Jr., 4122 Granby St., Norfolk, VA 23504

Hello and welcome to your March 1988 VHF Marine column.

Well by now you probably notice the type change. Yes I finally broke down and got a daisy wheel printer. Also I now have the 1987 FCC Marine microfiche file and the FCC state,Call Sign & Licensee Name files. I was going to purchase the master file but it costs over $ 500.00 from the Dept. of Commerce,since Bob Grove has discontinued microfiche.

Our first request comes from Russell (Pa.256). He requests a listing of Marine Frequencies in the South Miami Florida area.

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STEREO THEORY TAPES COULD BE SUBSTITUTED FOR THE BOOK FOR THE VISUALLY IMPAIRED. PLEASE ASK US.

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VHF MARINE continued

MIAMI:
======
Allied Marine Inc. - WRD-681 - 156.800
Ambassador Marina - WHU-495 - 156.450,156.800
Atlantic Radiotelephone - KXR-998 - 156.450,156.800
Babun Habraham - WEJ - 156.350,156.800
Belcher Towing Co. - WJK - 156.500,156.600,156.700,156.800,156.975
Bernuth Marine Shipping Inc. - WXZ-232 - 156.550,156.800
Coordinated Caribbean Transport - KZC-854 - 156.350,156.800
Coral Reef Yacht Club - KYX-261 - 156.575,156.800
Dade County - KCE-254 - 156.600,156.800
Dockside Marine Elect. - WHW-617 - 156.425,156.800,157.025
Eastern Cruise Lines - WHV-264 - 156.550,156.800
EFC Inc. - WHD-623 - 156.800,157.025
Emerald Fisheries - KPB-518 - 156.425,156.500,156.800
Florida East Coast - WHX-709 - 156.450,156.800
Florida Fuels - WHW-582 - 156.800,156.950
Florida, State of - KMD-296 - 156.650,156.800
WHX-727 - 156.650,156.800
Harvey,L.B. Marine - WHV-744 - 156.425,156.450,156.800
Ideal Marine Towing - WHV-922 - 156.800,157.025
Island Developers - KPB-627 - 156.500,156.800
ITT Communications - WXZ-466 - 156.500,156.800
J & A Electronics - KZV-708 - 156.450,156.800
Jockey Club Marina - WHW-232 - 156.425,156.500
Johnson Electronics - WHX-942 - 156.425,156.800,156.975
Kings Bay Resort - WHX-951 - 156.425,156.700,156.800
Klappert,Frederick Jr. - WHW-267 - 156.575,156.800

Laudicina Enterprises - WXZ-464 - 156.800,156.900
Melo,Peter - WQA-872 - 156.800
Metropolitan Dade County - WHW-502 - 156.650,156.800
WHW-506 - 156.650,156.800
Miami,city of - WQA-776 - 156.425,156.800,156.925
Moby Marine - KPB-600 - 156.550,156.800
New World Marinas - WHD-570 - 156.450,156.800
North American Yacht Sales - WHU-345 - 156.450,156.800,157.025
WHU-936 - 156.450,156.800,157.025
Norwegian Carribbean Lines - WHG-603 - 156.450,156.800,,156.975
Original World Wide Ltd. - WQZ-402 - 156.800,157.025
Palm Bay Club Marina - WHV-208 - 156.450,156.800
Pendlebury,Lawrence - WHW-269 - 156.450,156.800
Pioneer Shipping - WHW-484 - 156.350,156.800
Plaza Venetian Marina - WQZ-386 - 156.450,156.800
Resolve Maritime Corp. - WHV-985 - 156.800,156.975
Rich Electronics - WLG - 156.500,156.800
Romeau,Marcos A. Inc. - WOB-771 - 156.425,156.800.156.975
Schurger,Bruce - WHX-666 - 156.350,156.800
Skipper Hills Yacht Yard Inc. - WWM - 156.575,156.800
Smith,Thomas - KYR-525 - 156.450,156.700,156.800
Southern Bell - KSK-279 - 156.800,161.800,161.850
Sports Products - WHV-896 - 156.450,156.800
Stanley,Dennis - WHW-394 - 156.550,156.800,156.975,157.100
Stevens,Merrill - WHX-349 - 156.425,156.450,156.800
Town & Country Marine Electronics - WHD-747 - 156.425,156.800
Trans Carribbean Agencies - WPM - 156.800
Turnberry Isle Yacht & Racket Club - WQZ-395 - 156.425,156.800
University of Miami - KI2XGA - 156.425,156.800
Windjammer Barefoot Cruises - KVR-451 - 156.425,156.450,156.800

MIAMI BEACH:
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Atlantic Marine Ind. - WHV-308 - 156.500,156.800
Biscayne Bay Pilots - KGW-303 - 156.500,156.600,156.700,156.800
Carner Mason Assoc. - WHU-839 - 156.425,156.450,156.800
Florida Charters - WHX-404 - 156.325,156.450,156.800
Florida East Coast - WHW-806 - 156.450,156.800
Hi Lift Marina - KFN-378 - 156.425,156.800
International Maritime - WHG-999 - 156.500,156.800
Marine Telephone Co. - WHU-319 - 156.800,161.875
Sea Tow Services - WHW-581 - 156.800,157.025
Seaward Services Inc. - WHV-580 - 156.550,156.800
South Shore Marine - WHG-503 - 156.425,156.725,156.800
Tangent Yachting - KIL-748 - 156.450,156.800

NORTH MIAMI:
==========
DSY Inc. Maule Lake Marina - WQB-838 - 156.450,156.800
Far South Inc. - WHW-970 - 156.450,156.800
Florida,State of - WHW-765 - 156.450,156.800
Nadelman,Frederick - WHF-983 - 156.450,156.800

COCONUT GROVE:
==========
Bayshore Properties - KMC-989 - 156.425,156.450,156.800

CORAL GABLES:
==========
Island Marine Charters - WHV-367 - 156.425,156.800
Prahl,William & Robert - WEM - 156.575,156.800

There are other frequencies listed but they are all HF Shortwave SSB Frequencies. Most Cruise Lines use the SSB Frequencies. I am going to make frequency profiles for each state and I will include SSB frequencies in the lists because I feel that in order to have a full view of Marine Communications that they should be included.

***** If you would like to see the complete Marine Listings including all frequencies (both VHF & SSB-Shortwave) in this column,please drop me a line with you comments and opinions. After all this is your column and I am trying to print what you want to see.

Well I have gotten thru the holiday rush and hope to get down to work on marine statewide frequency lists soon. Also I will be getting in contact with many of you that have written in with requests and news items. I am a little slow but I do get there.

I need information for future colums. Please send in news.

See you next month.

RCMA NEW MEMBERS LIST

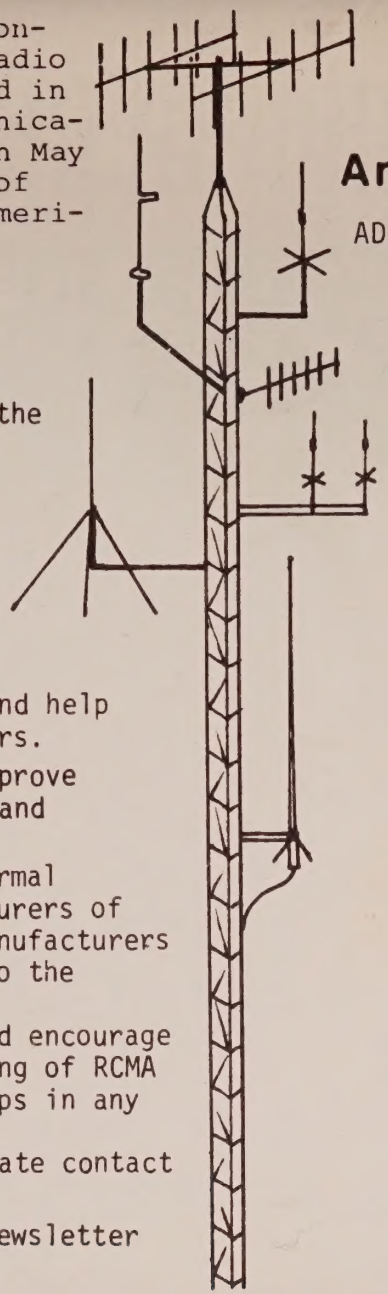
AR 022 - JAMES H BECK;P O BOX 21242;LITTLE ROCK;AR;72221-124
AZ 087 - JEFFREY CRONER;4138 W STELLA LN;PHOENIX;AZ;8501
AZ 088 - R M --LAST NAME AND ADDRESS WITHELD BY REQUEST
CACC035 - PAUL JOHNSON;3135 PONDEROSA WAY;ANTIOCH;CA;9450
CAFR012 - BILL BOYCE;34845 MAXON RD #101;SANGER;CA;9365
CALA722 - DEAN --LAST NAME AND ADDRESS WITHELD BY REQUEST
CALA723 - DAVE --LAST NAME AND ADDRESS WITHELD BY REQUEST
CALA724 - W G --LAST NAME AND ADDRESS WITHELD BY REQUEST
CALA725 - JOHN W HAYS;4344 PATERO WAY;LONG BEACH;CA;9081
CALA726 - BOB ALLESSI;4214 WEST 154TH ST;LAWNDALE;CA;9026
CAMA001 - DON BANTI;8853 RD 24;MADERA;CA;9363
CAMO009 - JAMES B ZIMMERMAN;1777 2ND AVE #411;FORT ORD;CA;9394
CANA131 - MIKE MCGUIRE;BOX 39 SASK HOSP GROUNDS;
N BATTLEFORD SASKATCHEWAN;;CANADA S9A 2X
CAOR337 - JACK H LUTZ;2740 SEGERSTROM #G;SANTA ANA;CA;9270
CAOR338 - SKIP LOVELESS;9721 SHAMROCK;FOUNTAIN VALLEY;CA;9270
CARI065 - JOSEPH SULAK JR;18035 DEXTER AVE;LAKE ELSINORE;CA;9233
CASB073 - CHARLES T CRAWFORD;15087 WHITEKIRK DR;VICTORVILLE;CA;9239
CASC064 - BRIAN M --LAST NAME AND ADDRESS WITHELD BY REQUEST
CASD086 - MARK LUDWIG;2669 COVINGTON RD;SAN DIEGO;CA;9210
CASD087 - RALPH RAKIS;1501-85 ANZA AVE;VISTA;CA;9208
CASD088 - R L DE ARMOND JR;5631 BOOT WAY;OCEANSIDE;CA;92056-194
CASD089 - K C WHITE;P O BOX 544;SAN MARCOS;CA;9206
CASM040 - PAUL KETTENBACCH;7880 EL CAMINO REAL-5;COLMA;CA;9401
CASZ014 - MATT ROSENBERG;6951 CARRETA LN;RANCHO MURIETA;CA;9568
CT 110 - JEFF --LAST NAME AND ADDRESS WITHELD BY REQUEST
FL 251 - ALVIN C MEYER;5703 N W 48TH WAY;TARAMAC;FL;3331
FL 252 - CAPT MILO SANDBURG;9710 SW 127TH AVE;MIAMI;FL;3318
IL 370 - RICHARD A CARLSON;P O BOX 514;WINNETKA;IL;60093-051
IN 100 - DON REAGAN;7736 NEW HAMPSHIRE;HAMMOND;IN;4632
IN 101 - RON FEICHTL;P O BOX 81;HAMMOND;IN;4632
IN 102 - BILL --LAST NAME AND ADDRESS WITHELD BY REQUEST
IN 103 - STEVE CONRAD;5518 ZUBER DR;FT WAYNE;IN;4680
MA 184 - BRUCE --LAST NAME AND ADDRESS WITHELD BY REQUEST
MA 185 - GREGORY KOVSIDIS;20 HUNNEWELL AVE;BRIGHTON;MA;0213
MD 136 - FORDE P PRITCHETT;1032 N MARLYN AVE;BALTIMORE;MD;21221-130
MI 192 - MARK GRIBBEN;1547 N HAGADORN #7;E LANSING;MI;4882
MO 117 - KEITH WEAVER;706 PROSPECT;WEST PLAINS;MO;6577
NC 084 - JAMES S --LAST NAME AND ADDRESS WITHELD BY REQUEST
NJ 249 - JAY DELGADO;44 HOPE ST;E RUTHERFORD;NJ;0707
NM 020 - RON GALL;617 HANSEN;LAS CRUCES;NM;8800
NY 412 - DAVID KIEDROWSKI;806 S LINCOLN PL;E ROCHESTER;NY;1444
NY 413 - CHRISTOPHER ADAMS;92 SCOTCHBUSH RD;BURNT HILLS;NY;1202
NY 414 - BRO. JULIUS TKACZYK;182 SARGENT AVE;BEACON;NY;1250
OH 211 - WILLIAM L GILMORE;8883 OLD RT 36;BRADFORD;OH;4530
OH 212 - DENNIS M KYSOR;177 WINONA BLVD;CHILLICOTHE;OH;4560
OH 213 - GARY LAURENZI;401 MORTIMER DR 411;BEDFORD;OH;4414
PA 257 - KEITH E MAYDAK;2644 MOSS SIDE #104-437;MONROEVILLE;PA;1514
TX 218 - JOHN D FRANKLIN;P O BOX 41;SANDERSON;TX;7984
VA 139 - WILLIAM C THOMAS JR;5906 N 19TH ST;ARLINGTON;VA;2220
VA 140 - W M --LAST NAME AND ADDRESS WITHELD BY REQUEST
VA 141 - JOSEPH ERNEST COVERT;12629 LEE WAY COURT;WOODBRIDGE;VA;2219

The RCMA Board of Directors supports the policy of not printing certain federal law enforcement frequencies, e.g., Secret Service, FBI, Customs, DEA. Agreement with this policy has been reinforced by a membership survey.

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of the Association of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.



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